Vol. XXVIII. Part 6.

NATIONAL MUSEUM OF VICTORIA

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The Journal of the Department of Agriculture of Victoria, Australia.

June, 1930.

PRINCIPAL CONTENTS

The Apple Industry of Australia
Dairy Competition at Tongala
Stanhope Farm Competition
Report on Burnley Egg-laying Competition, 1929-30
Standard Herd Records—March Quarter
Stallion Parades, 1930—Time Table
The Pig Industry

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THE JOURNAL

OF

THE DEPARTMENT OF AGRICULTURE

VICTORIA, AUSTRALIA.

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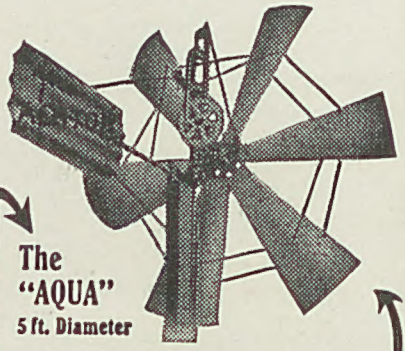

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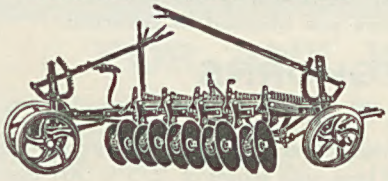

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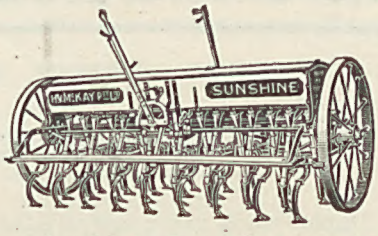

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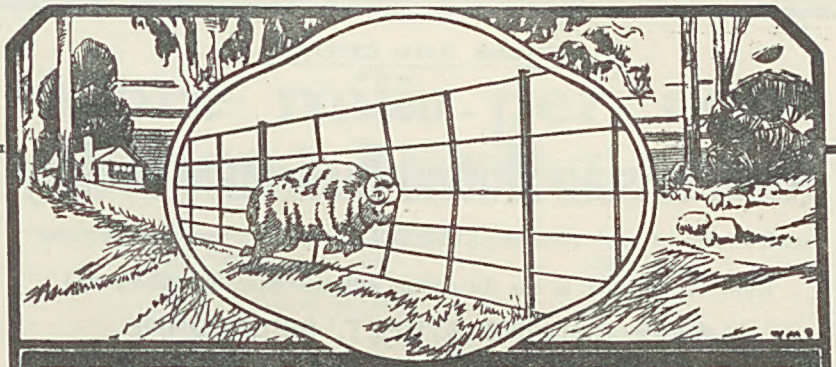

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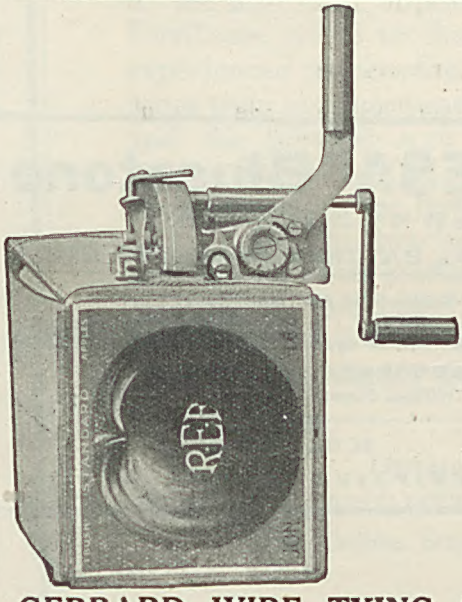

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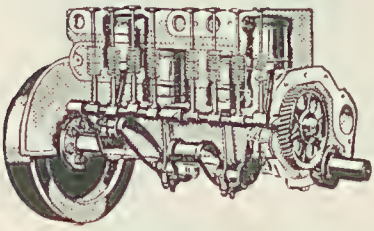
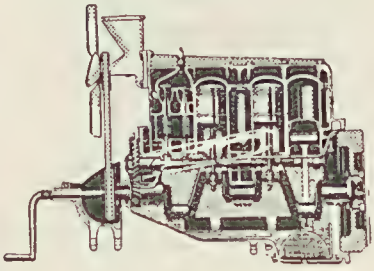


Sectional diagram of the Fordson engine showing camshaft gear driven off the crankshaft. Valve arrangement—right side vertical, 1 intake, 1 exhaust per cylinder. Illustration shows the unusually sturdy construction of camshaft and bearings. Crankshaft of specially hardened steel supported by 3 large bearings.



(Above) Lubrication system of the New Fordson Tractor. Flywheel forces oil to front end of engine by centrifugal action. The oil flowing back through specially re-designed crankcase fills troughs from which the connecting rods splash oil in the form of a fine mist to all moving parts. Oil screen at base of crankcase is easily removed for cleaning

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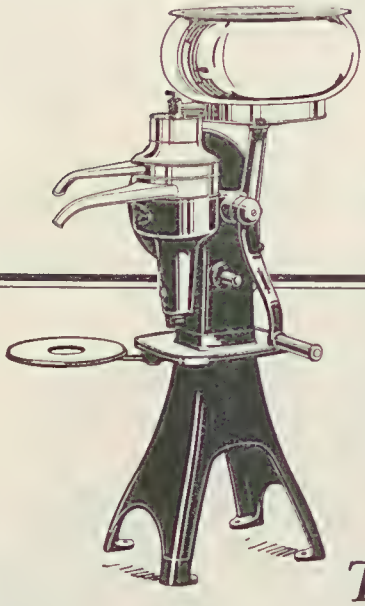

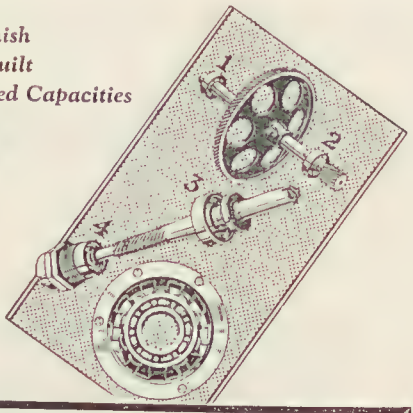

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NATIONAL MUSEUM OF VICTORIA

THE JOURNAL

OF THE

Department of Agriculture

OF

VICTORIA.

Vol. XXVIII. June, 1930. Part 6

THE APPLE INDUSTRY OF AUSTRALIA.

By J. M. Ward, Superintendent of Horticulture, Department of Agriculture, Victoria.

The reason for the advancement and the setbacks of the fruit industry in any country is always an interesting subject to investigate.

The bright side to growers in one country generally suggests a dark side in another. Last year (1929) Victoria, owing to various circumstances, produced only a small crop, whilst in Tasmania the crop was fairly good, and thus Tasmanian apples were sold in Victoria at satisfactory prices. This was a bright side for Tasmanian growers, but to their fellows in Victoria it spelt misfortune, not to say tragedy.

The fruit industry has ever had its problems. During the 29 years that I have been associated with it both as a grower in Tasmania and as an official in the Department of Agriculture in the States of Tasmania, Queensland, and Victoria, I have seen many sides of the business, attended many meetings of growers and others, and taken part in the discussion of all sorts of schemes for the betterment of apple-growers, and we are still discussing many problems that were under discussion over twenty years ago.

The old pests—Black Spot, Codling Moth, Thrips, Root-Borer—have still to be contended with. The old problem of how, in abundant seasons, reasonable prices are to be obtained still awaits solution. Yet, with all our troubles, we should never forget that every other primary producer and every city business or professional man have their troubles also. Each perhaps considers his particular burden greater than his neighbour's, but the primary producer probably airs his grievances more than any one else. Many of the apple-growers' problems can be overcome by organized effort on the part of all those interested in the production and sale of his fruit.

Historical.

In reviewing the historical side of the apple industry of Australia, one must begin with the history of Australia, for on the day of his landing at Port Jackson in 1788, Governor Arthur Phillip gave directions for the clearing of sufficient ground for a residence and for the purpose of receiving the plants brought by the fleet from Rio Janiero

and the Cape of Good Hope. The plants were then brought on shore, and in a short time every eye was gratified with seeing the fig, orange, pear, grape, and apple take root in New South Wales.

Probably the commencement of the industry in Tasmania was the planting of some apple-trees by Lieut. Bligh when he landed at Adventure Bay, Bruni Island, in 1792. About the year 1838 or 1839 Lady Franklin, wife of Sir John Franklin, then Governor of Tasmania, imported some apple trees from England, and had them planted alongside a creek at York Town, Northern Tasmania; most of these trees are still living, and although they have been neglected for many years they are still, all things considered, yielding good crops of fruit. I am unable to give the names of all the varieties, but know from personal observations that there are Alfristons and Stone Pippins among them.

To the Huon Valley, in Southern Tasmania, must be given the credit of establishing and maintaining the oldest commercial orchards in Australia. From what can be gathered, the first apple trees of the Huon were planted in 1843 by the late Thomas Judd, whose example was followed by the late Silas Parson, at the Grove; another who during the forties and fifties of the last century planted along, or near the banks of the Huon River, were the late William Barnett, of Franklin; the trees in this orchard are still producing splendid crops (up to 20 bushels per tree), and the property is now owned and occupied by his grandson, that well-known orchardist, Mr. N. B. Barnett. Then there was the late William Cuthbert; the late Mr. Coleman; the Pages, and a number of other early apple pioneers whose descendants are still growing apples in Huon district to-day.

Farther down the River, at Geeveston, the late William Geeves planted some apple trees in the year 1857; this property is now occupied by Mr. R. Geeves. The varieties planted by these early pioneers included Windsor Pippin, Ribston Pippin, Scarlet Nonpariel (better known in Tasmania as Scarlet Pearmain), Reinette de Canada (called Blenheim Orange in Tasmania), French Crab, Stone Pippin, Mobb's Codling, Alfriston, Dumelow's Seedling (Wellington), Gooseberry Pippin, Sturmer, and other old English varieties.

It is understood that the trees of the early plantings were imported from England. Other Tasmanian districts, such as the Kangaroo and Derwent Valleys, Lilydale, and Glenorchy, followed the lead given by the Huon; and in later years plantings were extended to other parts, including the Tamar and Mersey Valleys, the Channel, Peninsula, and other districts. Most of the trees planted in the early commercial orchards are still yielding excellent crops; indeed, apples from these old trees are every year exported to the United Kingdom and to the continental markets.

Victoria followed Tasmania's lead in the planting of commercial apple orchards. Probably the Henty family, who went over from Tasmania and settled at Portland, Victoria, in 1834, were the first to plant apple trees in Victoria. A variety said to have been planted there was known and spoken of as "Lawrence's Pet" (this probably was a St. Lawrence). One of the earliest orchards in Victoria was that of the late Mr. Thomas C. Cole. It was planted about the year 1845, on the banks of the Yarra, at Hawthorn, some 4 or 5 miles from the Melbourne General Post Office. It is many years, however, since with

the spread of the city this orchard disappeared and its site has long been forgotten.

The late Mr. James Lang planted an orchard at Harcourt in the year 1863; many of the trees are still thriving; the orchard is now in the possession of his son, Mr. J. H. Lang. About the same time Mr. Robt. Whatmough established an orchard in the Heidelberg and Greensborough districts, and gradually certain districts were found suitable for fruit trees, and there the industry took root. The varieties of the early Victorian orchards were practically the same as those planted in Tasmania, and no doubt the first trees were imported from England.

Apple orchards were not planted to any extent in New South Wales in the early days of the settlement of that State, but later on a number sprang up in the coastal districts in the vicinity of Sydney, where early-maturing varieties were grown. The markets there were for a long while partly supplied from Tasmania and Victoria. In later years, however, commercial apple districts were planted in a number of localities in different parts of that State, north, south, and west of Sydney. The Murrumbidgee irrigation districts, and several non-irrigated districts in New South Wales, are to-day producing high-grade apples.

In Queensland, practically the only apple areas are in the Stanthorpe district, which is in the south-eastern part of that State, at an altitude of some 3,000 feet above sea-level. The Jonathans, Gravensteins, Granny Smiths, and Delicious grown there are equal to those produced in any other part of Australia.

One or two small apple orchards have been planted in the Herberton district, which is the far north of Queensland some 70 to 80 miles from the coast, and approximately 3,000 feet above sea-level, but the climatic conditions are such that good quality apples cannot be expected.

I have no information regarding early planting in South Australia. Most of the orchards there, even to-day, are in the hill country within a radius of 50 or 60 miles of Adelaide.

The last Australian State to become a producer of apples was Western Australia. It is only during the last 20 or 25 years, particularly within the last 10 or 15 years, that apples have been grown there on a commercial scale.

As an exporting State, Western Australia has come to the forefront very quickly, and apples from there are probably more favorably known in England than those from any other State. The chief reason for success in this direction is that the growers there had nothing to forget, and profiting by the experience of orchardists in the older States, started on the right lines, planted the varieties most suitable for shifting and most favoured in the overseas markets, and, further, always took the precaution to see that fruit intended for export was graded and packed in the way most approved in the countries to which it was being sent.

Soils for Apple-Growing.

Apple trees have been planted on many types of soil in the different States. Some years ago there was a mistaken idea that any class of poor soil was good enough for an apple orchard; in fact, a number of people considered that a poor soil was the most desirable. In justice to myself I must say that I at no time belonged to this school of thought,

and never favoured the planting of apple trees for commercial purposes on anything but good soil. The early pioneers for the most part selected excellent soil for their orchards, and their judgment has proved correct, for it is an outstanding fact that many of those orchards—some of them 60 and 70 years old—that are yielding such splendid crops to-day, are on good types of soil. Of course good quality apples are produced on the poorest of soils, but the quantity to be obtained from each tree is much lower than from a tree on better-class soil.

The best Huon orchards, and the most productive orchards in all parts of Australia, are those on a really good type of soil. Bacchus Marsh, in Victoria (where the soil is alluvial and of great depth), Geeveston, Castle Forbes, and the alluvial flats in some parts of the Huon district are outstanding examples that the best results are to be obtained by planting trees on good soil. Similar examples in other States, America, and New Zealand could also be cited.

The apple orchard that yields below an average crop of less than 300 bushels per acre is hardly a payable proposition in these times of high cost of production. Orchards in the districts quoted have for years past yielded, and are still producing from 1,000 to 1,200 cases per acre.

Stocks.

The trees of early orchards of Australia were worked on to what is termed the seedling or free stock, but some 40 years ago a decided turn—more particularly in the mainland States—was taken against the use of this stock on account of its being subject to attacks of woolly aphis. The use of Northern Spy stock, vegetatively propagated, was favoured, for this variety, being highly resistant to woolly aphis, gave nurserymen an opportunity of sending from their nurseries young trees with roots free of aphis, and these trees were eagerly sought by new planters.

Prior to the advent of what is termed "blight-proof" stock, there existed a number of small seedling-stock nurseries in the Huon and Glenorchy districts which were able to meet the needs of Tasmanian planters. The placing of the so-called "blight-proof" trees upon the market resulted in these small nurseries going out of existence, and growers made their purchases from mainland nurseries. Years later, a number of orchardists became dissatisfied with the growth and production of these trees, and a demand was made for trees worked upon seedling stock, and thus a number of nurseries were again established in the Huon district. The introduction of the woolly aphis parasite (*Aphelinus mali*) has put another complexion upon the apple-stock question. Nevertheless all thinking persons interested in this subject realize that a considerable amount of research work on the fruit-tree stock question is still needed. In this respect excellent work has been done at the East Malling Research Station, England, and at least three of the Agricultural Departments in Australia have imported a number of apple-tree stocks from that station, with a view to testing them under Australian conditions. The stocks imported by Victoria are as follows:—

Very dwarfing stocks—Jaune de Metz, Paradise No. IX.
Semi-dwarfing stocks—Doucin No. II.
Vigorous stocks—Broad-leaved English No. I.
Very vigorous stocks—Malling Nos. XII., XIII., XV., XVI.

Orchard Pests.

As is well known the apple-grower has many orchard pests to contend with; these in the main are insects and fungi, but their prevalence varies in the different States. For instance, the chief troubles in the Tasmanian orchards are Black Spot (*Venturia inequalis*), Powdery Mildew, Codling Moth, and Mussel Scale. In Victoria, we have as our foremost pest, the Codling Moth, then come Black Spot and Root Borer (Root Borer is not present in all fruit districts); we also have, to a very minor extent in one or two districts, San Jose Scale, which is kept well under control.

In South Australia and New South Wales the common pests are similar to those found in Victorian orchards, whilst in Queensland, Codling Moth and Queensland Fruit Fly are the worst pests, Black Spot being conspicuous by its absence. Western Australia is more fortunate than its sister States in having neither Codling Moth nor Black Spot. The apple districts in all States also have minor pests, such as woolly aphis (*Armillaria mellea*) or root rot-fungus (worse in some districts than others). scale insects, and various fungi.

Research work in the control of orchard pests is greatly needed. If, for instance, we had some biological control of codling moth and fruit fly, the cost of production would be considerably lessened, and the yield of marketable fruit greatly increased. Greater research work by scientifically-trained men will, no doubt, be hastened when organized apple-growers demand it.

Area under Apples and Production therefrom.

Seventeen years ago (1913), the area under apples in the various States was 65,301 acres, and the production therefrom amounted to 4,692,569 bushels. The details are as follow:—

State.	Area.	Production.
	Acres.	Bushels.
New South Wales	6,507	548,801
Victoria	22,143	2,036,756
Queensland	627	15,904
South Australia	6,501	448,468
Western Australia	5,153	311,316
Tasmania	24,370	1,331,324
	65,301	4,692,569

Ten years ago (1919-20), the area under apples in the several States was 83,273 acres, and the production 6,247,659 bushels. The details are:—

State.	Area.	Production.
	Acres.	Bushels.
New South Wales	8,664	524,253
Victoria	30,992	2,227,317
Queensland	1,901	68,477
South Australia	8,673	445,916
Western Australia	7,964	629,757
Tasmania	25,079	2,351,939
	83,273	6,247,659

The area under apples in the various States of the Commonwealth during 1927-28 was 98,235 acres, and the production 11,504,639 bushels, made up as follows:—

State.	Area.	Production.
	Acres.	Bushels.
New South Wales	14,522	1,254,074
Victoria	32,482	3,712,350
Queensland..	4,158	103,893
South Australia	10,359	1,352,264
Western Australia	10,044	409,058
Tasmania	26,670	4,673,000
	98,235	11,504,639

Hereunder are details of the quantities produced in the several Australian States during the five years 1924-25 to 1928-29:—

State.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Average Five years.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Victoria ..	2,233,230	2,063,214	543,106	3,712,350	626,294	1,835,638
New South Wales	841,429	758,742	407,868	1,255,074	639,720	780,366
Queensland ..	98,644	130,369	113,810	103,893	183,461	126,035
South Australia	597,375	882,064	361,712	1,352,264	446,878	728,059
Western Australia	656,881	524,391	901,464	409,058	1,122,713	722,902
Tasmania ..	2,210,000	4,132,000	2,900,000	4,673,000	2,500,000	3,283,000
Total ..	6,637,559	8,490,780	5,227,960	11,504,639	5,519,066	7,476,000

Export.

The first record of fruit being sent overseas from Australia is as far back as 1873, when a few cases were sent from Victoria to the Vienna Exhibition. A couple of years later a small quantity was despatched to the Botanical Conference in Italy. In 1876 some 80 cases were exported from Victoria to the East; in 1880 a shipment of 13 bushels was sent to England, and in 1886 a consignment of 658 cases (about 25 tons) was made by Victoria, while in 1888 Mr. James Lang, on his own account, sent a quantity of apples to London.

Although our State can claim to have made the first experiments in export, the honour of establishing a trade is largely due to Tasmania. For this, credit is due to the late Mr. W. D. Peacock, together with Messrs. W. E. and L. M. Shoobridge, as well as to a number of Huon growers, who made shipments to England in 1887, and again in 1888.

The following table gives the quantities shipped from the various States during the five years 1924-25 to 1928-29:—

State.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Average Five years.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Victoria ..	454,149	453,744	11,727	927,615	14,408	372,328
New South Wales	32,325	22,287	7,767	53,362	20,522	27,252
Queensland ..	..	..	..	..	..	..
South Australia	33,290	329,486	6,452	496,685	9,863	175,156
Western Australia	347,342	298,379	494,641	169,237	654,982	392,916
Tasmania ..	1,331,000	2,115,000	1,068,677	2,716,435	912,145	1,628,652
Total ..	2,198,106	3,218,896	1,589,264	4,363,334	1,611,920	2,596,304

When apples were first shipped to Great Britain, they were packed in cases the inside measurements of which were 28 inches x 7 inches x 14 inches. This class of case continued to be used till about the year 1898, when a case known for some time as the "Peacock" case was introduced by the late Mr. W. D. Peacock to take the place of the unsuitable long narrow case. This is the one now known as the "Dump" case (18 inches x $8\frac{2}{3}$ inches x $14\frac{1}{4}$ inches inside measurements), and is still used for export purposes. A case of another shape, however, is now coming into general use; this is known as the "Canadian Standard" case (18 inches x $11\frac{1}{2}$ inches x $10\frac{1}{2}$ inches inside measurements), and so far, appears to be the most suitable of all. It is the only apple case used by the United States of America, Canada, New Zealand, and the South American apple-growing countries.

Though there is not a great deal of difference between the quantities of apples produced in Victoria and in Tasmania, there is a wide variation in the export figures. The reason for this is that Victoria, with its larger population, has a better home market, and consequently has a smaller surplus.

The average price of a case of apples delivered to the sale-room in England is approximately 10s., and the cost of delivering same is practically 6s. per case, made up as follows:—

Apples.	Per Case
	s. d.
Steamer freight	3 6
Insurance, B/L, Stevedoring, Coopering, Duty Stamps	0 $4\frac{1}{4}$
Forwarding	0 3
Handling Charges, London (*)	1 2
Brokerage	0 9
Exchange (1d. to $1\frac{1}{2}$d.)	0 1
Advertising	0 $0\frac{1}{2}$
London	6 $1\frac{3}{4}$
Other Ports	5 $11\frac{3}{4}$

(*) 2d. less for other Ports.

On top of this amount has to be added the cost of case, wrapping paper, branding or labelling, freight or cartage to the ship's side, and other incidentals, which can be put down at not less than 2s., making a total of 8s. from the packing house to the selling floor in England, leaving the grower only 2s. per case for the cost of production. As it costs approximately 3s. 6d. to produce a case of apples, it is essential that the grower should receive a higher average price per case on the London or European market as well as a more satisfactory price on the Australian market to make apple-growing a payable proposition.

It is often stated that apple-growing pays everybody but the man who produces them; on the figures quoted it certainly looks like it. Unfortunately there are too many low-grade varieties produced and shipped; and it is the low-grade kinds that help to reduce the price of the better class varieties. Another matter that requires attention is the elimination of many brands now being used. District brands are required rather than so many individual ones.

Cool Storage in Australia.

The space available in Australia for fruit cool storage is in the vicinity of 3,000,000 cases. Victoria leads in both the number of cool stores, viz., 68 (1 Government, 25 co-operative and proprietary, 42 private), and in capacity, 1,466,317 cases.

Production in other Countries.

It may be interesting to quote the production and imports of apples in other countries, and the quantity of apples exported from Australia to those countries which imported this fruit.

Principal Countries Producing Apples.

Country.	Annual Production.
	Bushels.
U.S.A.	202,842,000
France	165,465,040
Austria	31,490,570 (including pears)
Czecho Slovakia	15,850,000
Italy	13,650,000 (including pears)
Canada	13,479,549
England and Wales	11,600,000
Spain	8,800,000
Jugo Slavia	8,600,000

Chief Countries Importing Apples.

Country.	Annual Imports.
	Bushels. (approx.)
Great Britain	27,000,000
Germany	12,301,315
Canada	391,386
U.S.A.	133,409
Brazil	62,829
New Zealand	40,390
Argentine	23,226

Fresh Fruit (Apples Not Shown Separately).

Country.	Annual Imports.
	Bushels.
China	823,116
Straits Settlements	170,388
India and Ceylon	53,203
Java and Madura	50,879

Export of Apples from Australia, and Destinations.

Destination.	1925-26.	1926-27.
	Cases.	Cases.
United Kingdom	3,001,257	1,259,890
Ceylon	15,092	11,647
Hong Kong	372	262
India	757	1,017
Malaya (British)	26,100	22,667
New Zealand	..	292
Pacific Islands	1,475	1,490
Papua	395	425
South Africa	5,440	1,655
Other British Countries	120	67
Belgium	4,840	85
Denmark	14,007	2,932
Egypt	11,925	6,525
France	5	307
Germany	136,310	205,525
Netherlands East Indies	19,037	23,272
Norway	695	13,042
Siam	100	142
Sweden	4,935	27,480
Other Foreign Countries	85	42
	3,242,947 (approx.)	1,578,764 (approx.)

I have no doubt that with a proper all-Australian apple organization, coupled with improved grading and packing of good varieties, export could be increased and trade established with additional countries, though in 1928 apples were shipped from Victoria to 24 ports in various parts of the world.

We should also concentrate on producing earlier-maturing good-slipping varieties, with a view to shipping a week or two earlier than we do. The apples in the early boats usually bring fairly good prices; yet many of these are hardly as mature or as well coloured as we would like them to be.

DAIRY COMPETITION AT TONGALA.

(Organized by the Tongala Agricultural, Pastoral, and Horticultural Society.)

Report of the Judge, J. M. Kerr, Chief Dairy Supervisor.

The dairy competition organized by the Tongala Agricultural, &c., Society, entries for which closed on the 1st November, 1929, was judged on the 29th and 30th January, 1930. The winner was Mr. James Davis, of Koyuga, who obtained 283 points out of a possible 300. There were nine other entrants remaining in the competition at the time of judging; they were—F. W. Brose, Tongala; B. E. Cox, Tongala; Jas. Davis, Koyuga; W. J. Everett, Koyuga; F. Guiney, Tongala; A. W. Rowley, Koyuga; A. Tinning, Tongala; W. J. Tinning, Tongala; H. B. Waterman, Tongala.

Points on which Farms were Judged.

By the terms of the competition, points are allotted under three different headings, and the final award to each competitor is made up of the aggregate of these three allocations.

The three divisions were—

	Maximum.
1. General layout for convenience and sanitation ..	75
2. Cleanliness and care of utensils and premises ..	75
3. Quality of cream on delivery at factory	150

To arrive at the dairyman's credit due for No. 1 (the layout as it affected both working convenience and sanitation), the three main factors in the make-up of the dairy-farm steading, viz., cowshed, yards, and dairy (the latter including both separating and storage of the product), were made the fundamentals.

Full consideration was given to each, firstly, for its own particular functional merit; and, secondly, for its fittingness in relation to the other two. The points allotted to each on this basis made up the aggregate of No. 1 section.

Of course, a layout might be less sanitary for being more convenient, and vice versa. The separator room which abuts on the cow bails is an example of convenience procured at the expense, or at least the risk of, sanitation. Care was taken not to credit as convenience mere handiness that assists, perhaps, for the moment, but which inevitably necessitates more work later if the man concerned is as precise in matters of sanitation as a dairyman should be. For instance, it might save lifting if the place chosen to store the inverted empty return cream cans were down on the ground instead of on a raised rack, but it is no true convenience, because an exacting man would have to give the cans an extra wash before using them. Easy points were lost in this way by one competitor, who made an excellent showing otherwise, so good, in fact, that it was only this one slip of undue preference for ease over sanitation that lost him the prize. A

penn'orth of ease may be worth a penny any day, but it is certainly not worth what it is apt to cost in a business so exacting as butter manufacture for export.

General Layout of the Farms.

In appraising the layout, it was deemed right to attach more importance to the sanitation than to the convenience phase. Consequently, perfection was valued at 15 points in the former and at 10 in the latter, in respect of shed, yards, and dairy separately. None of the competitors obtained the maximum points for layout, either as regards sanitation or convenience. The highest points allotted to any competitor for convenience of cowshed was 8 (out of a possible 10). This was obtained by no less than eight of them. The highest score obtained for convenience of yards was 9 points, and this went to seven of the competitors. For convenience of dairy, eight of the competitors received the possible 10 points, but invariably at some cost to sanitation.

Regarding the "sanitation" aspect of these different dairy utilities (cowshed, yard, and dairy), for which 15 points each was the limit, the maximum figure was awarded in only one instance, and that was for a milking shed. From a sanitation point of view, the design and condition of Mr. Jas. Davis' milking shed was as good as one need expect anywhere. No competitor obtained the maximum for sanitation in the "yards" layout section; the highest allocation was 12 points (possible 15), and this was obtained by seven of the competitors. Practically all the yard surfaces were of earth right up to the cowshed, and were unduly dusty. Most of the yard fences were more or less improvised structures and out of repair.

The highest award for sanitation in the "dairy" section of "layout" was also only 12 points, which low figure was obtained by only six. This is not to say the conditions were discreditable at all; it was, in most cases, due to fault of position, and in a few instances to designs which showed that thought had not been given to placing the building in such position that the separator room and dairy would be in the coolest possible situation during the warm months of the year. A common defect in "layout," from a sanitation point of view, as far as the dairy work was concerned, was in building the separator room so that it abutted on the milking shed—the atmosphere of the one being practically the atmosphere of the other. Eight of the nine competitors lost points because of this. Four of these, however, provided other storage than the separator room for the cream, but, as it happened, gained either no or few points thereby, because of the buildings' unsuitability of either design or environment for a dairy. There should always be at least 6 feet of fresh and freely circulating atmosphere between the cowshed and separator room. The one man who had avoided abutting his separator room onto the cow bails made the mistake of building it farther away than was necessary; thus he lost points on the score of inconvenience, which were not made up on the score of "sanitation," and so gained nothing by his distinction. One very nicely kept cowshed and dairy had to be marked down considerably in the "sanitation" section of "dairy layout" because of

the drainage from the bails having to pass through a corner of the separator room. The separator room itself, though very clean, was improperly constructed, and as a consequence was over-warm and was insufficiently ventilated for cream-keeping purposes.

The highest number of points awarded in the "layout" section of the general competition was 65 points (possible 75). This was obtained by both Mr. Davis and the runner-up, Mr. W. Tinning.

A feature of the entries was the number of milking sheds with bails on the "walk-through" principle, six of the nine entries being so constructed. Points for convenience were lost in every one of these cases, the judging being based on the view that hand feeding in some measure is necessary for best results, even on irrigation blocks, and, however convenient the "walk-through" bail is for milking, it is by no means the most convenient for feeding. Milking time might well be extended if it is only during this time that the cows were able to snatch a little artificial feed. It was necessary to hold a few "convenience" points in reserve in judging this design of milking shed, because of the possibility of finding one where the labour of the necessary hand feeding had received due consideration. In the writer's opinion, the relative loss of time with a properly designed "return-bail" cowshed is insignificant, and is certainly well paid for by the extra facilities it offers for feeding (that is, of course, where cows are properly fed, which in these enlightened days should be everywhere).

Milking machines scored no points over hand milking, not even for convenience, although, as it turned out, the only two hand milkers were lowest on the list. It is the writer's opinion that all the time the machines save in milking may be fully spent in keeping them sanitary.

Cleanliness and Care of Utensils and Premises.

Coming now to section 2 in the schedule, viz., cleanliness and care of utensils and premises, the conditions in this regard (as might, of course, have been expected with men who enter a competition) were well above the average of the State's dairy farms. Here, again, to assist towards a fairer final adjustment, the dairy farm as an industrial institution was divided up into four sectional utilities, and the sanitation of each judged separately, so as to arrive at the sanitation merit of the whole. Thus really the section meant "cleanliness and care in (1) utensil practice; (2) milking-shed practice; (3) separator-room practice; and (4) dairy (or cream-storage) practice; or, in other words, thoroughness everywhere.

The care given under these various heads was determined by an inspection of the respective buildings or appurtenances, and the points were allotted on what this inspection disclosed. Of the four factors named, the utensils were regarded as entering most largely into the subsequent condition of the product, so that in determining the actual sanitation merit, the standard of points set for sanitation as it pertained to utensils was 21, while that allotted for the sanitation side of the remainder was 18 each for separator-room and cream storage (constituting the dairy), and 18 points for the milking-shed, making up the 75 points provided in the schedule for maximum attainment in the

"cleanliness and care" section. Here, again, no competitor obtained the maximum for any one of the factors named. The highest attained in the utensils department was 18 (possible 21), and this by one only—the winner. His advantage here lay in the fact that he was the only one who had what must be deemed necessary for every properly-equipped dairy farm, viz., water-heating apparatus, not only on an effective scale but at the very place where it is required; Mr. Davis has installed a copper and fireplace at the dairy.

In the milking-shed department of the "sanitation" section the maximum 18 was scored by two of the competitors—Messrs. Davis and W. Tinning. In the cream-separator department there was almost uniformity, the highest being 16, which was attained by six, the other three getting 15 each. The failure of so many to achieve the maximum in what should have been simple of accomplishment was due to the common defect of the separator-room being too close to the cow-bails and thus making for uncleanliness of atmosphere, where the cream must be exposed. The reduction in points, however, contains no suggestion of neglect in the cleaning of the room or in the working operations.

Sanitation of design was much at fault in the "dairy" or produce-storage division. In no instance could the provision for produce-storage be deemed adequate for top points. Five attained 16 (two short of the maximum), two 15, one 14, and one 13 points. The last was obtained by a competitor who chose to have his cream stored in a dusty room containing empty bags, machinery parts, and other lumber, adjoining his cow-shed, when he could have scored equally with many others by leaving his cream in the separator-room as they did. The scorer of the 14 points was one who had, commendably may be, gone to the trouble and expense of providing a special and (as far as it went) fairly suitable cream storage room, but had failed to make any provision for keeping the fowls from enjoying the shade it furnished, and so points were lost by one who had actually gone further than the others in the right direction; as found, I could not but regard the conditions as not bettered at all. It all goes to show that all the money in the world spent on premises will not make a place suitable if one has not the right sense of sanitation, which, if not possessed innately, one should make every effort to acquire. Of course, where this native instinct of tidiness is lacking or defective, the ill effect is somewhat minimized if the design of premises and appurtenances is such as to obviate some of the labour.

Quality of Cream.

With regard to the third section in the schedule, viz., "Quality of cream as delivered at the factory," it being impracticable for one in the capacity of judge to be present at the factory to judge the class of cream that each competitor usually supplied, the course was taken of making the factory gradings for a month back the basis of points in this connexion. All the competitors but one obtained the maximum in this section, eight of them having received the highest grade—

"Choice"—throughout the month. In one case a competitor's cream was graded down once from "Choice" to "First"; he thus lost 2 points, receiving 148 instead of 150—the maximum.

General Remarks.

Taken as a whole, as seen by me, the standard of dairy sanitation that was being maintained was generally creditable, the best feature of all being the generally apparent will to do better. I had to appreciate the fine spirit in which all competitors took criticism, which in this instance had but one intention—to help.

However, the maximum credit will never be attained in a competition of this kind, nor, for that matter, in the greater competition of competing in London, till those concerned realize the peculiar exigencies of the butter trade which permits of no risks at all being taken with "quality" at any stage. When this is properly appreciated the dairy supervisor also will be better appreciated, and his urge to better the sanitation of dairy production and manufacture will no longer be ill-taken.

The utility of a competition of this kind is that it will encourage farmers to attempt to win first place amongst their fellows, and the improvement this healthy rivalry brings about will help our dairy industry to win a foremost place in the world's markets, or, at any rate, to secure one of the foremost places in a world-wide competition.

To attain the maximum success in either competition there must be considerable improvement in certain features so commonly defective on farms to-day. For instance, the best cannot be hoped for while separator-rooms are built with no intervening break between this room and the milking-shed, and while this initial fault of position is aggravated by using such separator-room for storing the cream. Then again, no dairy farm can be regarded as safe from the trade point of view which has not a command of clean water convenient to the dairy, and also the means of boiling it in sufficient quantity for effective sterilization of dairy utensils and machines. The milk must be moved away from the cow-yard atmosphere for separating, so that the damage it will suffer from exposure during the process will be as little as possible. A free current of clean air is thus necessary between separator-room and cow-bails.

The milk needs a more effective strainer than many of the ill-designed and corroded ones so commonly in use. Provision must be made to reduce the temperature of the cream at the earliest opportunity after milking, and no more opportune time exists than as the cream falls from the separator. Cream cannot be safely stored either in a hot room or closed up from the air. This makes the provision of two things essential—first, some device which can be easily cleaned and which is capable of excluding little things, such as flies, and bigger things, such as mice and rats, from the cream; secondly, a dairy that is of clean and cool atmosphere, both inside and outside. A sanitary and substantially constructed metal cream cover of wire gauze will best serve for the first, while a sanitary and fly-proof dairy protected from access of domestic animals and fowls and kept free from everything of a tainting or contaminating nature will answer for the second requirement.

Everything that contributes to cleaner udders, cleaner hands, cleaner clothes, cleaner structures, cleaner utensils, cleaner machinery, and cleaner atmosphere will assist towards the production of cleaner cream, and consequently a clean-flavoured butter—the only class of butter for which we may expect "repeat" orders to the extent the country needs them.

All these points of improvement are emphasized to every dairy-farmer who reads this, but more especially to the dairyman who aspires to win a Tongala Dairy Competition in the future.

The following shows the points won by the winner, Mr. Jas. Davis, under their different headings, and also the system of allotment:—

Section.	Department.	Points for Convenience.	Points for Sanitation.	
		(Maximum 10)	(Maximum 15)	
1. Layout	Milking Shed	8	15	
	Yards	9	11	
	Dairy	10	12	
		27	38	65
		(Maximum 8)	(Maximum 10)	
2. Cleanliness and Care ..	Milking Shed	8	10	
	Cream Separation ..	6	10	
	Cream Storage ..	6	10	
		(Maximum 9)	(Maximum 12)	
	Utensils	8	10	
		28	40	68
3. Cream Quality ..	.. .. ..	.. ..	..	150
		Total ..	..	283

COLD STORAGE OF GRAPES.

The storage of juice grapes in the frozen state has been the subject of considerable experiment in California, in order to relieve the acute situation that has resulted in the last few years from over-production of this fruit. Last October a quantity of grapes was picked, frozen in barrels, and held in this state throughout the winter. Late in March 3 tons of these grapes were shipped as a test to the Department of Commerce Offices in the Far East. It is said that for juice purposes the grapes are as good as, or even better than, on the day they were picked. Arrangements have also been made to store a large part of this year's crop in four cold storage houses in San Francisco, instead of moving the whole crop to the market as fast as it is picked.

STANHOPE FARM COMPETITIONS.

Report of the Judges, Messrs. J. Roy (State Rivers and Water Supply Commission) and L. C. Bartels, B.Ag.Sc., Department of Agriculture.

Falling into line with neighbouring irrigation settlements, Stanhope has started farm competitions, and the first one, organized last season by Mr. H. C. Ray, of the Water Commission, showed that, in development of the blocks and farming methods employed by settlers, Stanhope compares very favorably with the others. The district has a high proportion of good land well suited for lucerne growing and some excellent crops were inspected. In addition, some good young pastures were seen, mainly on heavier ground.

The Sowing and Care of Pastures.

There has been an extension of the area under mixed pastures, and the settlers at Stanhope may pursue this line of development confident that it means progress. There is sufficient evidence available to show that the standard grasses and clovers will grow in the district, and if they are accorded fair treatment in regard to watering and manuring they will give good results. The experimental plots conducted for the Irrigation Investigations Committee by Mr. E. Hadfield bear out the teachings of the Agricultural Department in regard to the clovers and grasses suitable, and the value of attention to watering and manure. The plots were so arranged that strips of the various clovers were sown across a 5-acre paddock and strips of the standard grasses at right angles. In addition plots with complete mixtures were sown. The plots are not favoured as regard soil—indeed, the slope of the land is rather steep, and water does not penetrate easily, and although they were watered many times at intervals of three weeks, only 13½ inches of water was absorbed. By regular attention Mr. Hadfield has maintained a satisfactory condition and the pasture is improving.

A mixture of grasses and clovers recommended for sowing in the Goulburn Valley is as follows:—

Perennial Rye Grass (Western District or New Zealand, old pasture)	10 lb.
Cocksfoot	5 „
Italian Rye Grass	3 „
Perennial Red Clover (New Zealand seed)	2 „
White Clover	1 „
Alsike	1 „
Subterranean Clover	1 „
Strawberry Clover	¼ „

One pound of lucerne seed per acre also may be included with advantage.

All the pasture plants specified above have grown well in the plots, although the red clover has disappeared and the Alsike is thinning out. Cocksfoot seems to do particularly well and the rye grasses have been fairly persistent. Timothy, meadow foxtail, prairie and *Phalaris bulbosa* were sown, but there is nothing striking about their development, although they are all in evidence.

Mr. Hadfield used the pasture mainly as a night-grazing paddock in order to reduce the risk of bloat. In this night-grazing he had to alternate the plot paddock with a lucerne paddock, but he noticed an appreciable difference in production of milk in favour of the pasture grazing.

Waterings at three weekly intervals and a total absorption of 13½ inches should dispose of the argument that pastures require too much water. The water given was quite sufficient to maintain the different clovers, but had the absorption been better, growth would have been more abundant. It is for this reason that lucerne is a good pioneering crop; its roots have a sub-soiling effect and this favours succeeding crops.

One of the factors contributing to the success of the plots was the careful preparation of the soil before sowing. The ground was in bare fallow and was kept clean. The seed germinated well and grew very thickly. It is regrettable that more attention is not paid to this important matter. In most cases the pastures are intended to be permanent, but notwithstanding this, the ground is ploughed and sown without sufficient care in grading and preparation of the seed bed. In the Goulburn Valley autumn sowing is preferable.

The methods of applying manures vary, but the spreader is in common use. This drops the fertilizer on the surface of the ground. It is obvious that it is of no use to the plant until it is dissolved in the soil solution and absorbed by the plant, but the top-dressing is quite effective, and under rain or irrigation soluble matter in manures is carried into the soil and fixed there. Moreover there is no danger of the super. evaporating into the air, and because of its state of fine subdivision it remains available to plants, although new combinations are set up with the elements in the soil. These statements are made because of an observation that it is inconsistent to advocate thorough cultivation of the soil as a preliminary to liberal manuring for wheat and to state that for lucerne or pasture, top-dressing is sufficient without working it into the soil. But the cultivation of ground for wheat or other cereals is not primarily to distribute the superphosphate but rather to prepare the seed bed and to stimulate the processes by which nitrates and other plant foods are made ready for the wheat plant. An abundance of super. will not avail if moisture and nitrates are lacking.

The value of scarifying lucerne is often debated. It may be said emphatically that cultivation is of very little benefit to the lucerne plant itself—rather it is a disadvantage and likely to have an adverse effect on a clean stand. Cultivation is effective to a degree in keeping down annual grasses if it is done in early spring and observations on the test plots at Cohuna suggest that windmill grass (*Chloris truncata*) is repressed by cultivation. But cultivation is almost useless in combating couch grass, silt grass, white clover, Kentucky blue, &c. The best way to keep these in check is to manure the lucerne liberally, and allow it to grow up to smother the undergrowth.

Some Side-lines.

Pigs and poultry are important sidelines for many Stanhope farms. Mr. J. Organ had 23 brood sows, including several pure-bred Middle Yorkshires, and 125 young ones. These were housed in five double sties, and five small paddocks (three with pens) were available for grazing.

Messrs. Brock Bros. had eight Middle Yorkshire sows and a boar of the same breed. Mr. Coulson had four Middle Yorkshire sows, one Berkshire sow, and two Middle Yorkshire boars.

Mr. E. Collins rears calves, and considers it a better business than pig-raising. At the first inspection he had just sold 22 at five and a half months, and later he had on hand 38 under twelve months.

The Winning Farm.

The winner, Mr. J. D. Crothers, has a farm of 84 acres, of which 6 acres has been excised for a drainage channel. The farm is subdivided into sixteen paddocks; 60 acres is under lucerne, but the crop in a couple of paddocks is thinning, and has been thickened with rye grass and clovers. White clover is spreading over the property. Six acres was in Sudan grass, and 2 acres had been ploughed in preparation for sowing in autumn.

The water generally used amounts to 90 acre feet per annum, and a bag of super. per annum is given to the whole lucerne area. The lucerne made a good show at both inspections.

Mr. Crothers has a nice herd of Jersey cows, and the farm was carrying fifteen milkers, six springers, four calves, and a bull. His butter-factory returns from the herd (including heifers) showed an average of £23 a head. In addition to the cows, 100 sheep and four horses were carried; 40 white Leghorn hens were kept, and the pigs included three brood sows (two British black and one Middle Yorkshire), and one Berkshire boar, as well as eleven young ones.

The milking shed and dairy were neat and clean, and an implement shed protected a dray, carts, drill, &c.

Mr. P. R. Johnson has a model farm. The area is 93 acres. It is subdivided into fifteen paddocks, and a central lane opens on to all. The fencing is particularly good. Seventy-six acres is in lucerne, and 3 acres in mixed pasture. Some of the lucerne is thinning, and a usual practice is to sow oats through it in autumn. One bag of super. per acre is applied—usually in two lots.

At present Mr. Johnson is milking only three cows, and there were 800 lambs on agistment.

Poultry-keeping is an important activity, and 300 white Leghorn and Black Orpington hens were housed in an up-to-date shed.

In the interval between the first and second inspections a fine milking shed, of very convenient design, was erected, and new pig sties also were built. The surroundings of Mr. Johnson's home call for special comment. A striking feature is a belt of tall gum trees which have been grown from seed, and a very neat garden added to the attractiveness of the home.

Mr. Klein's farm has an area of 88 acres; 70 acres is under lucerne and 13 under seeded pasture. Part of this has been in for six years. It shows a good development of white clover, and Mr. Klein says he would not like to be without it. Eighteen inches of water is used per annum over the irrigated area, and super. is applied at the rate of at least 2 cwt. per acre per annum. Wimmera rye grass has been sown through the lucerne and is thickening.

The farm is subdivided into eight main paddocks and six small ones —to all of which there is easy access. Twenty-four cows are carried, 22 of which are in milk; in addition there are six young stock. All the stock is of the Ayrshire-Jersey type. There are 200 lambs, which are placed on the pastures from which the cows are moved. Three sows and a boar are kept, and a small flock of poultry. The farm buildings are neat and clean.

Farm Competition.

AWARDS OF JUDGES.

(Two Inspections.)

Name of Competitor.	General Layout of Ground for Irrigation. Conveniences for Handling a Dairy Herd.	Percentage of Land under Cultivation. Condition of Crops.	Returns from Dairy Herd and General Appearance of Stock.	General Control of Water, including State of Irrigation Channel.	Conservation of Fodders.	Poultry and Pigs.	Fences.	Farm Buildings.	Freedom from Weeds.	Care of Implements.	General Appearance of immediate Surroundings of Dwelling.	Total.
Possible Points ..	**80**	**80**	**60**	**50**	**44**	**44**	**36**	**36**	**30**	**20**	**20**	**500**
Crothers, J. D...	66	71	58	44	40	38	32	32	27	16	18	442
Johnson, P. R	76	73	38	46	38	28	36	34	28	17	20	434
Klein, C. A. ..	72	70	55	42	40	28	33	32	26	19	15	432
Chester, A. F. ..	69	71	56	42	42	35	32	30	25	14	15	431
Meadowcroft, S.	75	74	57	40	40	29	31	31	21	13	14	425
Coulson, J. ..	66	70	54	42	40	36	31	26	26	10	13	414
Collins, E. ..	65	72	52	44	34	14	34	34	28	18	14	409
Organ, J. ..	61	65	49	38	38	41	31	36	18	18	12	407
Brock Bros. ..	64	71	50	40	42	28	32	29	24	12	12	404
Calley, F. A. ..	69	69	50	41	42	21	32	28	25	13	13	403
Nelson, A. ..	64	68	52	38	38	29	31	27	24	11	3	385
Williamson, A...	60	70	49	42	40	14	33	20	25	10	12	375
Potts, E. ..	76	71	50	40	..	7	33	30	26	11	12	356
Shearman, L. J.	61	69	30	40	40	13	31	21	23	10	11	349

Lucerne Competition.

Mr. Calley, who won the lucerne competition, showed a very nice exhibit of eight-year-old lucerne. It was uniform, and at the stage of early bloom when inspected. This paddock of lucerne has been kept mainly for cutting. It has been cultivated every season, and previous to last year had had 90 lb. of super. per annum, but last year it was given 135 lb. of super. in October, and 100 lb. per acre extra in November. It is usually watered at twelve-day intervals, and is cut when coming into bloom.

Mr. Hacon's exhibit was a 3½-acre area which was in its fifth season. This crop was sown in autumn on lea ground with 8 lb. of seed and one bag of super. per acre. During the last two seasons most of the growth was cut, and the annual dressing of manure applied was 5 cwt. per acre in two dressings. Each year the first application was made in September and the second in January. In watering Mr. Hacon is guided by the condition of the lucerne; he waters not more than twice between cuttings, and uses about 2 feet of water in the season. The lucerne is usually cut at intervals of five weeks, when it is coming into bloom. At inspection it showed an abundant growth, although rather straggling, as a result of rain. There was some weed growth in patches.

Mr. Crothers' lucerne made a nice exhibit. It was the fourth crop, and only half grown, but it was fresh and uniform. Watering would appear to be a difficult matter, but a good job had been made of it. This lucerne was sown in September, 1928—after the land had been fallowed for twelve months; 10 lb. of seed and 1 cwt. of super. per acre were put in. A bag of super. was applied last year, and the lucerne was watered every fifteen days.

(ONE INSPECTION—POINTS AWARDED.)

Name of Competitor.	Layout of Paddock for Irrigation. Condition of Channels and Drains.	Apparent Yield of Hay at Time of Judging.	Quality of Hay it would produce.	Uniformity of Crop.	Absence of Weeds.	Total.
Possible Points ..	**20**	**20**	**20**	**20**	**20**	**100**
Calley, F. A. ..	18	19	19	19	18	93
Hacon, E. ..	18	20	18	18	18	92
Crothers, J. D.	18	12	20	19	18	87
Shearman, L. J.	19	12	19	19	18	87
Nelson, A. ..	18	16	18	18	17	87
Williamson, A.	18	13	19	18	17	85
Brock Bros. ..	18	12	18	19	17	84
Coulson, J. ..	18	9	18	19	17	81
Collins, E. ..	18	4	18	19	17	76

Pasture Competition.

Mr. Coulson's pasture was sown in August, 1929. Previously wheat had been grown on the land which had been fallowed in preparation for the pastures. The mixture used was lucerne, 4 lb.; red clover, 3 lb.;

Wimmera rye, 4 lb.; cocksfoot, 4 lb.; Alsike clover, 1 lb.; and subterranean clover, 1 lb.; 90 lb. of super. per acre was put on, and irrigation was necessary to bring the grasses up.

The Wimmera rye grass and cocksfoot were well developed, and the lucerne was a conspicuous feature.

Mr. Nelson's pasture was not shown in its best condition. At the first inspection a crop of meadow hay had just been carted off, and at the time of the second inspection it had been eaten off and was in need of water. The layout was good, and there was the basis of a good pasture.

At the first inspection Mr. Chester's pasture was languishing for water, but when seen on the second occasion it surpassed the others. The clovers and rye grass were well established. Alsike clover was a conspicuous element, but white clover was extending, and subterranean clover was making an appearance.

AWARD OF JUDGES.

(Two Inspections—Points Averaged.)

Name of Competitor.	Layout of Paddock for Irrigation. Condition of Channels, Drains, &c.	Condition of Herbage.	Uniformity of the Pastures.	Variety.	Absence of of Weeds.	Total Points.
Possible Points ..	**20**	**20**	**20**	**20**	**20**	**100**
Coulson, J. ..	17½	16	16	16½	19	85
Nelson, A. ..	17½	14	17½	17½	18	84½
Klein, C. A. ..	16½	16½	16	17	17½	83½
Chester, A. F.	16½	14	15½	17½	18	81½
Murray, J. W.	17	10½	16½	15	18	77

BURNLEY EGG-LAYING COMPETITIONS, 1929-30.

By W. C. Rugg, Chief Poultry Expert.

The Nineteenth Egg-laying Competition for Fowls was begun on the 1st April, 1929, and terminated on 2nd March, 1930. The competition for ducks terminated at the same time, though it had not been commenced until the 1st May, the delay being due to the fact that structural alterations were required to the pens.

The Value of Competitions.

It is admitted by most of those who have engaged in the breeding of poultry in Victoria that egg-laying competitions have raised the standard of productivity and have helped to bring about an extension of commercial poultry-breeding.

The Burnley Competitions, which are the only ones in this State conducted under Government supervision, may be said to have reached the "high-water" mark in competitions. The conditions are exacting; the supervision is strict; the results are official and are accepted throughout the world. The competitions are not commercial propositions, nor are they expected to be. The large amount of work associated with them is a bar to financial success. The supervision of hundreds of birds in trap-nests and in single pens, and the weighing and recording of every egg laid by each individual bird, are exacting tasks, and the cost of them alone would prevent the competitions from ever becoming payable propositions.

The competitions, however, are of great value to the State in supplying invaluable data to breeders and others—data accurate and above suspicion. In fact, the Burnley Competitions are having a similar influence on the poultry industry to that of the Government Standard Herd Test on the dairying industry. It has enabled poultry breeders to ascertain the most suitable birds from which to breed, and so lay down a definite programme of pedigree breeding. This has resulted, not only in profit to the individual breeder, but in a general uplifting of the poultry industry of the State. There is no doubt that the position Victoria holds to-day as the greatest poultry-producing State in the Commonwealth is, in a great measure, due to the distribution of stock bred from birds with authentic scores of standard-weight eggs laid at the Burnley Competition.

Correspondence now on the departmental files shows that progress reports of this competition are keenly watched by poultry-breeders in countries overseas, as well as in other States of the Commonwealth. Birds bred by Burnley competitors have been exported to many of the principal poultry-producing countries of the world, including England, America, Canada, South Africa, India, and Honolulu; and, as "repeat" orders have been received from each of these, it would indicate that the birds sent have given satisfactory results in their new homes, and are proving a splendid advertisement for Victoria's poultry industry.

The popularity of the Burnley Competitions amongst the best breeders has been again demonstrated this year, as for the 1930-31 Competition every pen is occupied. The number of entries this

year was far in excess of those received for any competition yet held. This necessitated a ballot, with the result that some were unsuccessful in obtaining pens. It is hoped that when the present financial depression has passed the Government will erect further accommodation, and thus avoid disappointing so many competitors.

Winners in Section A (Wet Mash), Class 4.
(Owner, Wingood Poultry Yard, Kew.)
Laid 1,349 eggs (including three underweight) in 48 weeks.

Comments on the 1929-30 Competition.

The test just concluded was more remarkable for the improvement in type and size of the birds competing than for high scores. No records were established, but some very good results were obtained, which is all the more creditable when it is remembered that last winter was probably one of the worst for frost that has been experienced at Burnley.

An indication of the improvement in stamina that is taking place was shown by the fact that the number of deaths (28) during this competition was very much less than the number that occurred last year, when 44 birds died from various causes. It was not necessary this year to return any birds for vices such as egg-eating, feather-eating, &c.

In competitions in some countries the number of deaths of birds competing is increasing. Some authorities suggest that the reason is that many competitors, while breeding from birds that have laid record numbers of eggs, have given insufficient consideration to the vitality and constitution of their birds, and to the standard size of the various breeds. In view of this, it is indeed pleasing to be able to say that Victorian breeders realize that stamina and health are just as essential as the ability for high egg-production.

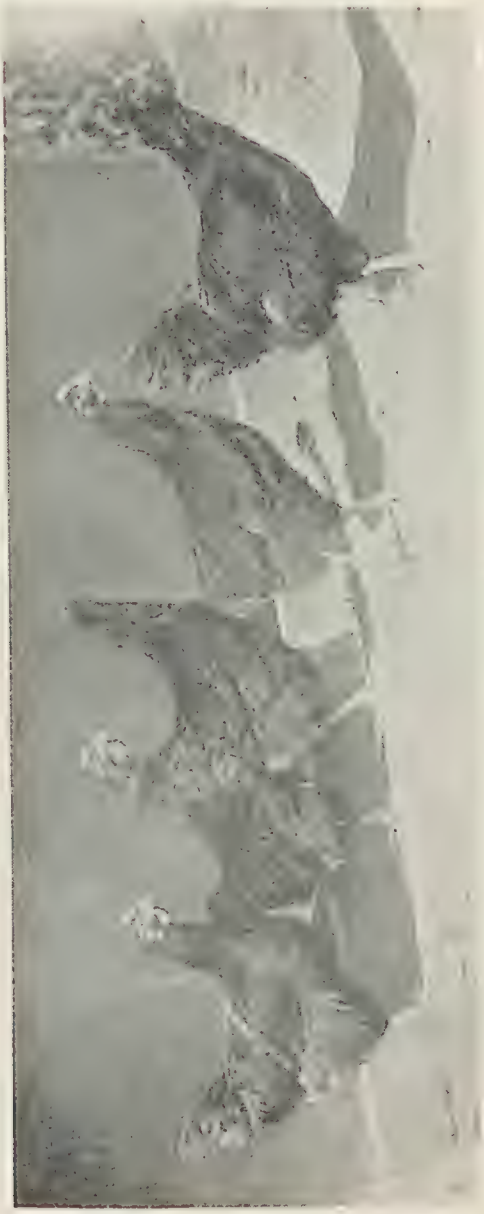
Mr. G. McDonnell's White Leghorn—Winner in Dry Mash Section, Class 2.
Laid 262 eggs (nine underweight) in 48 weeks.

Wet-Mash Feeding v. Dry-Mash Feeding.

The merits of wet mash versus dry mash have been widely discussed for years. Although some of our largest commercial farmers are strong advocates of wet mash, there are quite a number carrying on with dry mash, and I believe the number is increasing. Yet at Burnley a marked decrease has taken place in the entries in the dry-mash classes, though in the past many fine records were made in these sections.

In the twelve months of the year 1914-15, Mr. W. N. O'Mullane's pen of six White Leghorns laid 1,699 eggs, which is still the official record for this breed. Another good score was that of Mr. J. Ryan's

hen, which laid 330 eggs in twelve months in the year 1923-24. In both these cases the birds were fed on dry mash. This year, however, birds fed on wet mash showed marked superiority over those given dry feed.



Mr. W. Donovan's Team of Rhode Island Reds—Winners in Section A, Class 5.
Laid 950 eggs (eight underweight) in 48 weeks.

In Section A, certificates are issued in the case of Leghorns that lay 220 or over first-grade eggs in 48 weeks. Twenty-two birds fed on wet mash qualified for these certificates during 1929-30, and only two of those fed on dry mash were successful.

In Section B, certificates are awarded to the single-penned Leghorns that lay 240 or over first-grade eggs in 48 weeks. Fifteen birds fed on wet mash won certificates, while only three on dry mash were successful.

So far in the feeding experiments at the Werribee Research Farm, pullets fed on dry mash have shown quite as satisfactory results as those given wet mash. Thus it is difficult to say which is the better system; indeed, it is a matter which must be settled by the poultry-farmer under his own conditions.

Mr. F. D. Woolcock's White Leghorn—Awarded Second Place in Section B, Class 2.
Laid 253 eggs, all first grade, in 48 weeks.

Section A.

CLASS 1.—WHITE LEGHORNS—WET MASH.

The winning team was bred and owned by Messrs. Anstis Bros., of Spring Vale. This team laid a total of 1,377 eggs in the 48 weeks; 149 of them were underweight. It was a good even team, but one hen laid 71 underweight eggs out of a total of 195. The highest number of eggs laid by a member of this team was 263, only three of which were underweight.

Of the two teams that finished with the least number of underweight eggs in this section one was owned by Mr. A. J. Hill, of Greensborough, and the other by Mr. F. M. G. Starbuck, of Murrabit. Only eight underweight eggs were laid by each of these teams.

A very unusual occurrence has to be recorded in connexion with the team owned by Mr. H. W. Devlin. During the winter it put up a

good performance by laying 475 eggs in 122 days (only eighteen eggs of which were underweight), and was awarded first prize in the winter test. During August and September the birds moulted, and when they came back into lay it was found that their eggs, compared with those laid in the first months of the competition, had decreased very much in weight, and the team finished the competition with a total of 351 underweight eggs out of 1,073 eggs laid for the 48 weeks.

Messrs. Anstis Bros. Team of White Leghorns—Winners in Section A, Class 1.
Laid 1377 eggs (149 underweight) in 48 weeks.

Considering that the weather had improved and that the method of feeding was exactly the same as that of the other birds in the competition, and that all other conditions were similar, the falling off is difficult to understand.

Class 2.—White Leghorns—Dry Mash.

The first prize was won by Mr. N. Burston, of Balwyn. His team laid 1,262 eggs in 48 weeks; 55 eggs were underweight. This was probably the only team of pure Padman blood in the competition, and the performances of each bird were remarkably even, only 28 eggs separating the highest and lowest hens' scores.

CLASS 3.—FOR ALL LIGHT BREEDS OTHER THAN WHITE LEGHORNS.

The first prize was won by a team of Black Leghorns, bred and owned by Mr. J. B. Salmond, of Deer Park. This team laid 1,032 eggs; 22 of them were underweight, and eighteen of this number were laid by one bird.

CLASS 4.—BLACK ORPINGTONS—WET MASH.

The first prize went to that consistent breeder, Mr. T. A. Goodwin, of the Wingood Poultry Yard, Kew. His team laid 1,349 eggs in 48 weeks; only three of them were underweight; a really good performance was put up by hen No. 4 of this team. She laid 272 first-grade eggs. When it is remembered that she was in an open yard,

Mr. F. W. Gough's Brown Leghorn—Winner in Section A, Class 3.
Laid 234 eggs (six underweight) in 48 weeks.

exposed to all weathers, and that her total was equalled only by that of one other hen, and that that one was in a well-sheltered single pen, the performance is seen to be all the more creditable.

The second prize was won by a team from Drouin, Gippsland, owned by Mr. E. Edwards. They put up a fine score of 1,254 eggs, only ten of which were underweight.

CLASS 5.—ALL HEAVY BREEDS OTHER THAN BLACK ORPINGTONS.

Mr. W. Donovan's team laid 950 eggs, eight of which were underweight. One of this team died twenty weeks after the test started.

Section B.—Single Test.

Class 1.—White Leghorns—Wet Mash.

The first prize was won by Mr. T. L. Eastaugh, of Highett, with a hen that laid 281 eggs, nine of which were underweight; his other entry in this class laid 257, only three of which were underweight. Mr. Eastaugh promises to be as consistent with Leghorns in the future as he has been, and still is, with his Black Orpingtons or Australorps. The second prize went to the team of Mr. G. Fraser, of Thorpdale, with a

Mr. N. Burston's Team of White Leghorns—Winners in Section A, Class 2 (Dry Mash).
Laid 1,262 eggs (55 underweight) in 48 weeks.

score of 276, only five of which were underweight. Third place was secured by Mrs. McDonnell, of Kew, whose hen laid 268 first-grade and two underweight eggs.

Class 2.—White Leghorns—Dry Mash.

The winner in this class was bred and owned by Mr. G. McDonnell, of Kew, who is probably the most consistent breeder of Competition Leghorns in the Commonwealth. This hen laid 262 eggs, nine of which were underweight. The second prize was won by Mr. F. D. Woolcock.

of Clifton Hill, whose bird laid 253 eggs, all first grade. His other entry in this class also laid all first-grade eggs. The third prize was awarded to Messrs. J. Brighton & Son; their entrant laid 243 eggs, all first grade.

There were a number of particularly good hens in this section. Amongst others was one owned by Mr. W. A. Pollerd, which laid 242 eggs, four of them underweight. Another, owned by Mr. F. G. Fereday, laid 239, only three of which were underweight.

CLASS 3.—LIGHT BREEDS, OTHER THAN WHITE LEGHORNS.

The first prize was won by a Brown Leghorn, which laid 234 eggs, six of them underweight. This hen is owned by Mr. F. W. Gough, of Malvern.

CLASS 4.—BLACK ORPINGTONS—WET MASH.

First prize was secured by Mr. T. L. Eastaugh, of Highett, with a good-bodied hen, which laid 270 eggs, all first grade. Second prize went to Messrs. Morton Bros., of Mitcham, whose hen laid 253 eggs, all first grade. Third prize was awarded to another consistent winner at Burnley in Mr. C. E. Graham, of Portarlington. His hen laid 258 eggs, but eight were underweight. Other good hens in this class were owned by Mr. J. Thompson, of Sale (246 eggs, all first grade); Mr. H. McChesney, Mt. Evelyn (242 eggs, all first grade); "Shawville," St. Kilda (two birds, one of which laid 233 and the other 203 eggs, all first grade).

CLASS 5.—ALL HEAVY BREEDS, OTHER THAN BLACK ORPINGTONS.

First prize was won by Mr W. Tedstone, of Balwyn, with a Rhode Island White, which laid 227 eggs, all first grade.

DUCKS.

It has been again demonstrated that, if bred from the right stock, ducks are wonderful producers of eggs, not only in numbers laid but in weight of eggs also. Out of 4,100 eggs laid by the three leading teams, only eleven eggs were under 2 oz. in weight.

Section A.

GROUPS OF SIX DUCKS.—SINGLE TESTED.

First prize was won by Broadleigh Egg Farm, Spring Vale, with a team of Khaki Campbells, which laid 1,441 eggs in 48 weeks, only four of which were underweight. The merit of this performance can be better appreciated when it is known that one of the team died on 5th August, 1929, after contributing only 92 eggs to the total. The total laid by the other five was greater than that of any other complete team at this competition. Second prize was won by Mr. R. Isworth, of Preston. His team of Fawn Indian Runners laid 1,335 eggs, only one of them underweight. Third place was awarded to Mr. M. G. Leech, of Campbellfield, whose team of Khaki Campbells laid 1,324 eggs, six of which were underweight.

The best sequence of eggs laid recorded at Burnley was that of a Khaki Campbell duck, owned by Mr. G. Crawford, of the Orana Poultry Farm, Mitcham. His duck, No. 5, laid 162 eggs in 162 successive days; all the eggs were over 2 oz. in weight; in fact, only on one day from 7th May to 16th December did she fail to lay.

Section B.

Groups of Three Ducks.

First prize was won by Mr. M. G. Leech, of Campbellfield, whose trio of Khaki Campbells laid 843 eggs, all first grade. Second prize went to Mr. J. Hayes, of Cheltenham. His trio of White Indian Runners laid 672 eggs, only one of which was underweight. Third place was gained by Mr. R. Isworth, of Preston, with a team of Fawn Indian Runners, which laid 569 eggs, one of them underweight.

All the certificates for the greatest number of first-grade eggs laid by individual ducks in Sections A and B were won by Khaki Campbells.

Financial Side.

Fowls.

The number of fowls in the competition at its beginning was 656, but 28 of these died. The total number of days these latter birds collectively were in the pens was 5,870, which is equal to approximately seventeen birds having been there for the full 48 weeks. Therefore, the total number of birds in the competition for the whole period may be regarded as 645, and this is the figure that has been used when working out averages, &c.

The total number of eggs laid, including those underweight, was 120,817, an average per bird of a fraction over 187 for the 48 weeks.

The price realized for the eggs averaged 1s. 1¾d. per dozen. The market value of the eggs averaged 17s. 10½d. per bird, and the cost of food averaged 10s. 2¼d. per bird—a fraction over 2½d. per week; thus the profit over cost of food for the 48 weeks averaged 7s. 8¼d. per bird.

The different kinds and quantities of the food fed to the birds during the currency of the competition was as follows:—

Wheat, 26,146 lb.; oats, 3,580½ lb.; maize, 5,067 lb.; barley, 71 lb.; peas, 201½ lb.; wheat pollard, 17,874½ lb.; bran, 12,806½ lb.; meat-meal, 222½ lb.; meat, 4,605 lb.; dried buttermilk, 154 lb.; onions, 748 lb.; salt, 132 lb.; grit, 2¼ tons; charcoal, 8½ bags.

Ducks.

The number of ducks in the competition at its beginning was 60, but five of them died. The total number of days these latter birds collectively were in the pens was 818, which is equal to approximately two birds having been there for the full 48 weeks. Thus, the total number of birds in the competition for the whole period may be regarded as 57; this is the figure that has been used for working out averages, &c.

The total number of eggs laid, including those underweight, was 11,137, an average per bird of a fraction over 195 for the 48 weeks.

The price realized for eggs averaged 1s. 1¾d. per dozen. The market value of eggs was 18s. 7¾d. per bird, and the cost of food averaged 13s. 5d. per bird—a fraction over 3¼d. per week; thus the profit over cost of food for the 48 weeks averaged 5s. 2¾d. per bird.

Hereunder is given a list of the different kinds and quantities of the food fed to the ducks during the currency of the competition:—

Wheat, 124 lb.; wheat pollard, 5,459 lb.; bran, 2,918 lb.; meat-meal, 168½ lb.; meat, 435 lb.; dried buttermilk, 6 lb.; salt, 36 lb.; grit, ¼ ton.

Conclusion.

The machine used for weighing the eggs is an expensive one, but for speed and accuracy it is probably the best that could be obtained. It was supplied by Toledo Berkel Coy., and a representative of the firm visits the competitions regularly to see that it is in perfect order. The eggs are weighed to the tenth of an ounce.

Mr. J. B. Salmond's Team of Black Leghorns—Winners in Section A, Class 3.
Laid 1,032 eggs (22 underweight) in 48 weeks.

A number of letters have been received by the Department from owners expressing their appreciation of the excellent condition of the birds when they were returned.

Acknowledgments.

I have to thank Messrs. Clinton and Pederick for having prepared the tables of results, and also for the report of the financial side. The tables of results will be printed in this *Journal* for July.

Mr. Macaulay and his assistants are again to be congratulated on the care and attention given to the birds. This unfailing attention reflected itself in the general excellent health of the birds during the period of the competition.

I also wish to express my gratitude for the clerical work done by Mr. J. Walsh and Mr. C. Lord in compiling and issuing the weekly and monthly returns. Further, they were called upon to answer numerous inquiries by competitors during the currency of the competition, and many of the inquirers have expressed to me their very warm appreciation of the courtesy and assistance given them.

Statement showing the Number of Eggs Laid by the Various Breeds in the Competition and the Average Number of Eggs Laid per Bird.

Descriptions.	No. of Birds.	Eggs Laid.			Average No. of Egg Laid per Bird.		
		1st Grade.	Under Weight.	Total.	1st Grade.	Under Weight.	Total.
LIGHT BREEDS.							
Wet Mash.							
White Leghorns ..	296	51,166	6,421	57,587	172·8	21·7	194·5
Black Leghorns ..	21	3,271	247	3,518	155·7	11·8	167·5
Anconas	6	795	62	857	132·5	10·3	142·8
Brown Leghorns ..	4	704	39	743	176·0	9·7	185·7
Total Light Breeds, Wet Mash ..	327	55,936	6,769	62,705	171·0	20·7	191·7
Dry Mash.							
White Leghorns ..	90	15,420	1,050	16,470	171·3	11·7	183·0
Total Light Breeds, Wet and Dry Mash	417	71,356	7,819	79,175	171·1	18·7	189·8
HEAVY BREEDS.							
Wet Mash.							
Black Orpingtons ..	173	29,768	3,320	33,088	172·0	19·2	191·2
Light Sussex	20	2,406	768	3,174	120·3	38·4	158·7
Rhode Island Reds ..	27	3,652	183	3,835	135·2	6·8	142·0
White Wyandottes ..	2	357	8	365	178·5	4·0	182·5
Single Comb R.I.W. ..	4	736	150	886	184·0	37·5	221·5
Rose Comb R.I.W. ..	2	294	..	294	147·0	..	147·0
Total Heavy Breeds, Wet Mash ..	228	37,213	4,429	41,642	163·2	19·4	182·6
Total all Breeds, Wet and Dry Mash ..	645	108,569	12,248	120,817	168·3	19·0	187·3

THE PIG INDUSTRY.

By A. J. Gill, Herd Tester.

The rearing of pigs should form a valuable sideline on every farm.

No other farm animal has so great an earning capacity, yet no other is so little understood and so often kept under unfavorable conditions. The United States of America exports annually over forty-four million pounds sterling worth of pig products. Those sent out of Denmark, a place less than one-fifth the size of Victoria, are valued at nineteen million pounds annually. Yet Denmark has to import grain, while in Victoria it can be produced cheaply and in large quantities. Our climate is mild, and pigs may be kept in the open during the whole year.

Hints to Pig Farmers.

For financial success in pig-farming I would impress upon those engaged in the industry the necessity for breeding the type of pig that will yield bacon of the quality demanded by the public. Further, farmers should remember that, to establish and hold a market, a continuity of supply is necessary. The policy usually adopted is to take up pig farming when the market is good, and abandon it as soon as prices drop. Consequently there is at times a scarcity of pigs; at other times an over-supply; and unless farmers are prepared to keep up a regular supply there will never be a regular and steady demand.

STORES.

Farmers should always breed their own stores. A pig can be bred and reared to the age of eight weeks (by which time it is ready to wean) for 10s. An animal at this age will frequently cost from £1 to 25s. in the open market.

RETURNS TO BE EXPECTED.

A good sow should produce two litters a year of, say, ten in each litter. These twenty will be fit for the bacon factory when five months old, and should, according to prices ruling now (June, 1930), bring £4 each, or £80 for the two litters. The revenue from pigs on the farm should equal that from the cows.

TREATMENT BEFORE FARROWING.

Sows may be run on pasture during the greater part of the year; this, besides greatly reducing the feed bill, will result in larger and stronger litters. Some sows on pasture will rear a litter; such animals, however, are rare—not more than two or three in a hundred.

When a sow nears farrowing, her pasture feed should be supplemented by grain and meat meal, or grain and skim milk. A correctly-balanced ration for sows about to farrow or suckling young pigs is 10 lb. of meat meal to 100 lb. grain, or 3½ lb. of grain to every 10 lb. of skim milk. Pigs fed on grain and water solely, and not allowed pasture, produce deformed young. Potatoes or root crops do not make a balanced ration, and if fed alone they may cause the young to be prematurely born.

TREATMENT AFTER FARROWING.

After farrowing there is a possibility of constipation. Green pasture or wet bran will act as laxatives.

A sow at any time seldom gives more than three quarts of milk daily. In from three to four weeks she will begin to dry off, and the young will look for extra food. It is then advisable to provide what is termed a "creep" for them. By a "creep" is meant a small space fenced off to which the young may easily pass from the sty through a small opening, but which the sow is not allowed to enter. A trough should be placed in the "creep," and from this the little ones should be fed.

CARE OF THE YOUNG.

Perhaps the most suitable feed for them is pollard, or any finely-gristed meal, mixed with skim milk. (From 2 to 2½ lb. pollard to 10 lb. milk.) If no skim milk be available, meat meal and linseed meal should be added to the pollard, or whatever grain is used. (For every 100 lb. of pollard or grain add 12 lb. meat meal and 8 lb. linseed meal.) Pigs at birth weigh, on the average, 2½ lb. Their weight increases at the rate of ¼ lb. daily for some time. Thus in ten days they should double their weight. They will then commence to gain at the rate of ½ lb. per day till they have attained the weight of from 80 to 100 lb., and from that time onward they should put on 1 lb. per day. These gains, of course, will depend on the method of feeding or the breed of the pig. Greater gains than those mentioned may at times be obtained.

Pigs should have become "baconers" by the time they are five months old. The older the pig, the more food required to increase his weight by a pound. A young pig (say, at the 100-lb. stage) should increase 1 lb. in weight for every 4 lb. of grain fed; the same pig when it has reached the 200-lb. stage would require 5 lb. of grain to increase its weight by 1 lb. At first glance the difference may seem slight, but it means a cost of one penny more for every pound of pork.

The males should be castrated when they are about six weeks old. Every care should be taken to see that the instruments are properly sterilized before being used.

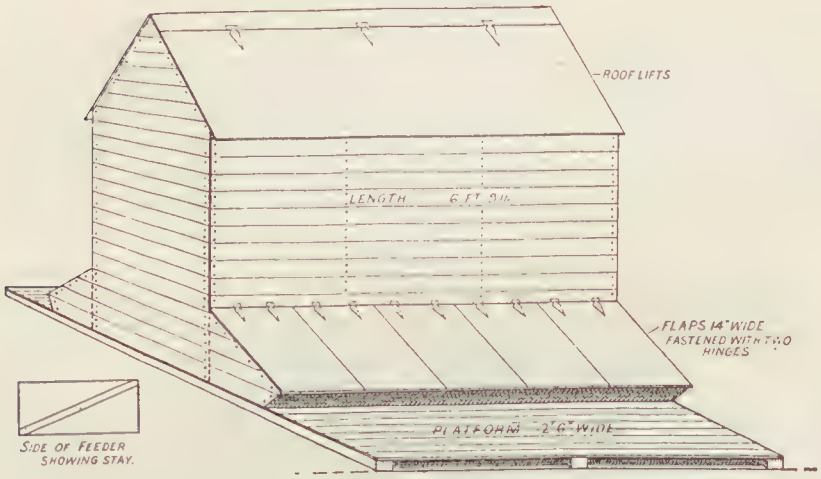
Young pigs should be weaned when eight weeks old. This will allow the sow to produce two litters a year.

Paddocks of 1½ to 2 acres are of the most convenient size when fattening pigs on grasses and clovers. With lucerne, ½-acre paddocks will be suitable. The pigs do best in lots of 12 to 16.

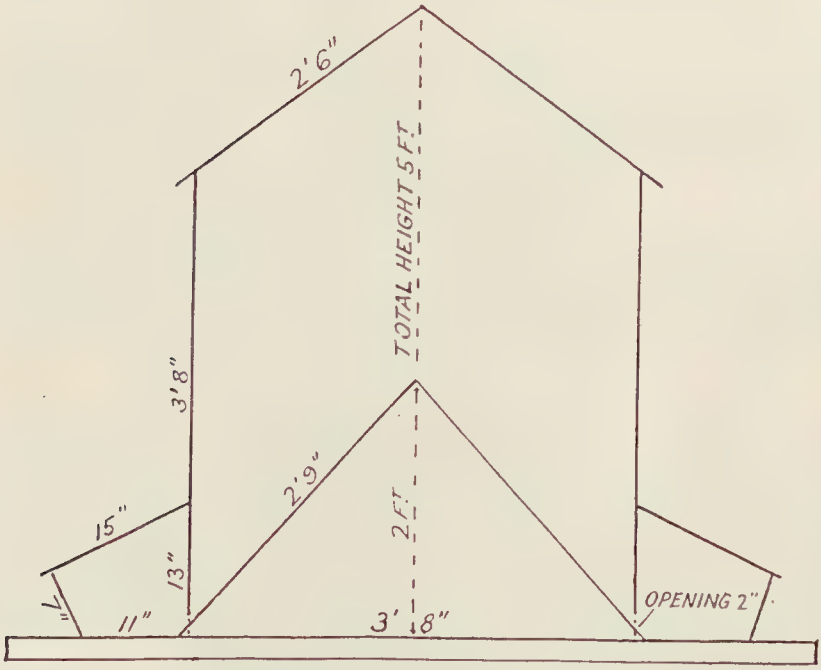
When weaners are transferred to the paddocks, allow the sows to remain with them for the first two days. At the end of this time the young ones will have settled down, and the mothers may be removed.

Automatic feeders should be placed in the paddocks. These may be made from softwood cases or from flooring boards. The illustration on page 356 indicates how simple they are to construct.

The young from some sows will gain weight at the rate of over 1 lb. per day; others will only put on ½ lb. The advantage of weighing each young pig and noting its daily increase in weight is that



Plan of a Self-feeder capable of holding up to 1,000 lb. food.



End view of Feeder shown above.

one is enabled to cull the sows whose young do not make sufficient gain, and also to select for breeding purposes the young sows that grow most quickly. An animal that grows rapidly will cost from 10s. to 15s. less to fatten than will a slow-growing animal.

A pig should always be sold when he reaches the correct weight. The keeping of a pig until he is too heavy means extra cost—a loss of 2d. per lb. in the selling price, perhaps more. Pigs should be kept free from vermin. This can be accomplished by the application of waste crude oil from the motor car, about once every four weeks.

Slips and stores should not be sacrificed, as is too often done, when the milk supply begins to diminish in January and February. They may be fed on grain and meat meal in the quantities already given. Stags should never be trucked with other pigs. They injure the others by biting them, and the injuries may fester, and when the pigs are killed and dressed it may be necessary to cut away considerable quantities of flesh, which will mean loss to the bacon-curer. If they cannot be transported in crates, they should be killed and dressed on the farm.

Pig Foods and their Value.

The main pig foods in Victoria consist of grains and their by-products. The grains in use are barley, wheat, oats, peas, maize, and millet. The chief grain by-products are pollard, bran, rice meal, malt combings, linseed meal, and meat meal.

Of all the grains, barley is recognized as the best for fattening pigs; it produces a bacon and pork of first quality. It may be fed alone or mixed with other grains. Barley and skim milk are used by the Danes to a large extent in the production of their famous bacon.

Wheat also produces a good quality of bacon and pork. Care should be taken to see that it is not ground too finely, as in this state it is inclined to become doughy when moistened.

Oats will give a good quality of pork and bacon. On account of the large percentage of husk, this grain when fed to young pigs sometimes causes scouring, but for animals of three months and over it is a good food.

Maize.—Pigs fatten well on maize. Unfortunately, however, it produces a soft bacon, inferior in quality to that from pigs fed on other grains, consequently it is always advisable to feed maize in conjunction with other foods. It is inadvisable, therefore, to make maize more than 50 per cent. of any grain mixture, indeed, from 30 to 40 per cent. would be preferable.

Peas form a valuable food when used with other grains. They are rich in protein, and, therefore, are useful to balance such other grains as have a higher carbo-hydrate content. Fed alone, peas will produce a very hard lean, and young pigs do not thrive on them. Excellent results are obtained when they form from 25 to 30 per cent. of the grain allowance.

Millet is a grain sometimes fed to pigs in the northern districts. If fed alone, it produces a soft bacon or pork of rather inferior quality. It should, therefore, be mixed with other grains, and must never constitute more than 30 to 40 per cent. of the ration.

Beans alone give a very inferior pork and bacon. They should never form more than 15 per cent. of a ration.

POLLARD is a by-product in the manufacture of flour, from which it is separated in the course of bolting. Its fineness makes it suitable food for young pigs; it is also a valuable addition to any grain mixture; indeed, it gives better results when mixed with grain; if fed alone, the bacon produced is not so firm as could be desired.

BRAN is another by-product from the flour mill. It is the outside covering of the wheat, which comes away in flakes when the grain is broken. When fed wet it has laxative qualities, and is useful in preventing constipation in sows suckling their young. It is, however, not of much value as a fattening food.

RICE MEAL fed in excessive quantities produces soft bacon and pork. It should at no time constitute more than 25 per cent. of any mixture.

MALT COMBINGS are occasionally fed to pigs. They cannot be recommended as a food for young pigs, but may be fed to mature animals in small quantities.

MEAT MEAL—a product from abattoirs and meat factories—is a protein-rich food, and valuable in balancing rations of grain when skim milk is not available.

LINSEED MEAL is sometimes used in conjunction with meat meal. It is fed only in small quantities; usually it is about 6 per cent. of the ration; it should never exceed 8 per cent. It has laxative qualities, and is fairly rich in protein.

When skim milk is available, meat and linseed meal are not required.

COTTON-SEED MEAL, while useful for cows, is not recommended for pigs. When it is fed to them they thrive seemingly for a few weeks; then sicken, and, unless promptly placed on other feed, they die.

Pigs being fattened on grain will always thrive better on mixed grains than they will when only one variety is fed.

Remember, all grain should be gristed.

(To be continued.)

BALLIANG EAST FALLOW AND CROP COMPETITION, 1930.

Report of Judge, Mr. P. D. McRae, Field Officer, Department of Agriculture.

The fallows at Balliang East seem to have been much better prepared on this occasion than were those of last year. More workings had been given, and the use of the roller and harrows has been largely discontinued in favour of that of the cultivator. A further improvement in method which may be suggested is an earlier ploughing. Out of 22 entries only 4 were noted in which the land had been ploughed before August, and several competitors had deferred this operation until as late as October. Probably the reason for this was a desire to make use

of the green feed on the land. While one cannot blame a farmer who acts on the principle that a bird in the hand is worth two in the bush, at the same time it must be realized that, in this case, he risks an almost certain loss in yield in the following crop, and also that it takes quite a lot of grazing to equal in value several bushels of grain per acre. Some of the competitors showed their appreciation of the value of cultivation after rain by undertaking such after the fall which took place at the end of December, when harvesting operations were in full swing—a time when cultivation is considered by most people to be out of the question.

DETAILS OF AWARD.—WHEAT SECTION.

Competitor.	Mulch.	Moisture.	Weeds.	Cultivation.	Total.
Possible Points	**25**	**25**	**25**	**25**	**100**
Waugh and Sons ..	25	23	24	24	96
Geo. Peters	23	22	23	23	91
W. J. Schulz	21	21	24	23	89
C. N. Buckler	23	20	23	23	89
P. Davis	21	21	22	23	87
S. Gilmore (No. 1 Entry) ..	22	19	22	23	86
S. Gilmore (No. 2 Entry) ..	22	19	22	23	86
R. Purcell	21	21	20	23	85
Fry Bros.	19	18	25	23	85
G. V. Davis and Son ..	21	21	20	23	85
A. Coe	17	22	21	23	83
C. Westhorpe	20	19	20	23	82
L. E. Bird	18	20	18	23	79

OATS SECTION.

Competitor.	Mulch.	Moisture.	Weeds.	Cultivation.	Total.
Possible Points	**25**	**25**	**25**	**25**	**100**
B. R. Norton	23	22	24	24	93
W. J. Schulz	21	21	24	23	89
L. E. Bird	22	24	20	23	89
P. Davis	21	22	18	23	84
A. Coe	17	22	21	23	83

BARLEY SECTION.

Competitor.	Mulch.	Moisture.	Weeds.	Cultivation.	Total.
Possible Points	**25**	**25**	**25**	**25**	**100**
P. Davis	23	23	23	23	92
Geo. Peters	23	22	23	23	91
W. T. Beggs	22	21	24	23	90
A. Coe	17	22	21	23	83

Messrs. Waugh and Sons' fallow was in almost perfect condition, the surface being fine and loose, the seed-bed well compacted, and the moisture content satisfactory. It had been ploughed 4 inches deep early in October, rolled, spring-toothed and harrowed early in November, harrowed later in November, spring-toothed and harrowed at the end of February, and harrowed in March. This land is a sandy loam, not at all typical of the soil in the district, and the late ploughing which gave good results in this case would almost certainly not do so in others.

Mr. Geo. Peters' land had been well prepared with a minimum amount of cultivation. It was fine underneath, with sufficient small clods on the surface to keep it loose. It contained plenty of moisture, but seedling weeds were just commencing to show. It had been ploughed 3½ inches early in July, smoodged about the middle of August, harrowed at the end of October, spring-toothed and lightly harrowed in January, and again during the first week in March.

Mr. B. R. Norton's fallow also was in very nice order, the mulch being deep and loose, and not too fine, and the moisture content was satisfactory. The ground had been ploughed in July to a depth of 5½ inches, spring-toothed during the first week, and again in the second week of September, harrowed at the end of September, spring-toothed the first and last weeks in October, harrowed at the end of December, and spring-toothed at the end of February. It will be seen that Mr. Norton was one of those who found time for a cultivation after the December rains.

Mr. P. Davis' entry in the barley section was good, although it had not received a great deal of cultivation. It had been disk-ploughed 3½ inches deep in September, spring-toothed, rolled, and harrowed in October, and spring-toothed in February.

Mr. W. T. Beggs' land varies a good deal in quality, and had, apparently, been very hard as, in spite of a considerable amount of working, it was still slightly lumpy. It had been disked during the first week in August, and harrowed two weeks later. In September it had been cross-harrowed, rolled, and cultivated. In October harrowed and cultivated, and again harrowed in November, cultivated with light harrows attached in February, and again in March.

CORRECTION.

BROWN ROT AND TRANSIT ROT AND THEIR CONTROL.

From a paragraph on p. 39 of this *Journal* for January last, in a report on Brown Rot and Transit Rot and Their Control, it might be inferred that iron louvre trucks are used by the New South Wales Railway Department for the carriage of Goulburn Valley fruit from Albury to Sydney. The trucks used are wooden louvres. The Victorian Railway Department uses both iron and wooden louvres for fruit, but principally the iron ones.

STANDARD HERD RECORDS

for Quarter ended 31st March, 1930.

In the following is set out the records of all cows which completed a lactation during the quarter. The number is 319, of which 243 qualify for the certificate.

The amount of butter fat required for qualification varies according to the age of the animal (up to 5 years at time of calving), the standards being as follow:—

Junior 2 year old (under 2½ years at time of calving)	200 lb. butter fat.
Senior 2 year old (between 2½ and 3 years at time of calving)	225 lb. butter fat.
Junior 3 year old (between 3 and 3½ years at time of calving)	250 lb. butter fat.
Senior 3 year old (between 3½ and 4 years at time of calving)	275 lb. butter fat.
Junior 4 year old (between 4 and 4½ years at time of calving)	300 lb. butter fat.
Senior 4 year old (between 4½ and 5 years at time of calving)	325 lb. butter fat.
Mature cow 5 years and over	350 lb. butter fat.

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
N. B. Alston, Romsey	2	2	Jersey	Rosyth Meadow Sweet ..	Jr. 2 yrs.	Vol. 16	31.3.29	273	7	4,854	4·75	230·59	200	
				Jessie's Dream of Esperanza	Mature	17388	29.4.29	273	20½	7,460	5·19	387·15	350	
J. Anderson, junr., Lyndhurst	2	2	Jersey	King's Vale Brunette 24th ..	Jr. 2 yrs.	Vol. 16	1.5.29	273	14½	4,399	5·56	244·38	200	
				King's Vale Canary 22nd ..	Jr. 2 yrs.	Vol. 16	9.5.29	273	22	7,050	5·48	386·44	200	
L. R. Archibald, Tongala	3	3	Jersey	Mayfield Park Daisy 2nd ..	Jr. 2 yrs.	24215	8.5.29	273	19	4,938	5·45	269·30	200	
				Mayfield Park Lady Monica 3rd	Sr. 2 yrs.	22930	16.5.29	273	18½	5,812	5·51	320·51	225	270
				Wompini Vanilla	Sr. 2 yrs.	24605	9.6.29	273	21½	6,185	5·40	333·90	225	
W. H. Atherton, Murrayvale	1	..	Jersey	Tiny 3rd of Beverley ..	Sr. 3 yrs.	21097	5.4.29	273	9	4,712	5·57	262·47	275	282, 434

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
W. K. Atkinson, Swan Hill	8	7	Milking Shorthorn	Moss Rose of Willow Park ..	Mature	14221	13.4.29	273	39	12,607	4·13	520·90	350	404, 424, 471
				Cherry of Willow Park ..	Mature	9198	28.4.29	273	34	17,776	4·15	737·46	350	325, 474, 636, 597, 623, 686, 630
				Countess 3rd of Willow Park	Sr. 3 yrs.	..	30.4.29	273	26½	8,975	4·42	396·50	275	310
				Damsell 2nd of Willow Park	Sr. 2 yrs.	..	9.5.29	273	23	7,721	4·68	361·28	225	
				Melba of Willow Park ..	Jr. 3 yrs.	..	8.6.29	273	12½	7,407	3·84	284·69	250	
				Duchess 5th of Willow Park	Mature	13495	11.6.29	273	21½	9,164	3·84	351·86	350	259, 264, 307
				Queenie 10th of Willow Park	Sr. 4 yrs.	..	17.6.29	273	15½	6,491	3·84	249·02	325	259, 276
				Chance of Willow Park ..	Mature	13259	18.6.29	273	28½	9,194	4·20	394·95	350	292, 294, 348
F. Austin, Lara	8	8	Jersey	Avalon Gladstar's Pansy ..	Jr. 2 yrs.	Vol. 16	10.5.29	273	20½	6,272	6·36	398·67	200	
				Avalon Noble's Daisy ..	Jr. 2 yrs.	Vol. 16	12.5.29	273	14	5,029	6·73	338·42	200	
				Avalon Gladstar's Beauty 2nd	Jr. 2 yrs.	Vol. 16	18.5.29	273	20	5,783	6·83	395·20	200	
				Mercedes' Buttercup 4th of Avalon	Mature	16599	30.5.29	273	27	9,662	4·91	474·68	350	263, 329, 371, 503
				Avalon Mercedes' Buttercup 6th	Sr. 3 yrs.	22937	1.6.29	273	25	9,114	4·87	443·71	275	299, 381
				Avalon Noble's Pansy 2nd ..	Jr. 3 yrs.	22948	24.6.29	273	23	8,723	6·13	534·44	250	427
				Avalon Noble's Beauty ..	Sr. 3 yrs.	22946	25.6.29	273	26	8,696	6·02	523·08	275	373, 400
				Mercedes' Pansy of Avalon ..	Mature	16600	25.6.29	273	31	11,073	5·75	636·78	350	321, 344, 425, 542
W. H. Axford, Camperdown	3	2	Jersey	Leura Silverbelle 5th ..	Sr. 2 yrs.	24243	27.5.29	273	18	7,122	4·89	348·48	225	
				Rarity of Leura	Mature	16605	27.5.29	273	14½	5,378	6·23	334·97	350	
				May of Leura	Jr. 4 yrs.	18624	2.6.29	273	18½	7,461	5·61	418·40	300	
Ballarat Orphanage, East Ballarat	1	..	Jersey	Dunalister Mannikan's Attraction	Mature	10381	11.5.29	273	11	5,530	4·43	244·97	350	277, 268, 268
A. V. Becher, Welshpool	2	..	Friesian	Braeside Bercham Princess ..	Jr. 4 yrs.	2108	7.5.29	273	6½	6,384	3·13	200·11	300	
				Braeside Lily	Mature	Vol. 6	18.5.29	273	14	8,091	3·93	317·98	350	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
G. H. Bellfield, Coleraine	1	1	Jersey	Dalray Larkspur Surprise ..	Jr. 2 yrs.	23250	15.4.29	273	16	6,112	5·80	354·41	200	
Mrs. A. J. Black, Noorat	1	1	Jersey	Noorat Sunflower	Sr. 4 yrs.	21135	8.5.29	273	15	7,159	4·71	336·92	325	292, 220
I. S. Black, Noorat (Home Farm)	2	2	Ayrshire	Sparrovale Georgina ..	Jr. 2 yrs.	16658	7.4.29	273	..	9,374	4·31	404·38	200	
				Sparrovale Ailsa Craig ..	Jr. 3 yrs.	16632	18.4.29	273	19½	6,840	4·26	291·48	250	256
I. S. Black, Noorat (Share Farm)	2	..	Ayrshire	Begonia 2nd of Sunnyside ..	Mature	14284	25.4.29	273	10	5,046	4·53	228·61	350	
				Mistletoe of Sparrovale ..	Jr. 2 yrs	18934	28.4.29	273	7	3,774	4·12	155·63	200	
S. Bolton, Mannerim	4	4	Jersey	Annie of Enterprise ..	Jr. 4 yrs.	21145	6.5.29	273	19	7,019	5·12	359·19	300	248, 347
				Rosie of Enterprise ..	Jr. 4 yrs.	21146	25.5.29	273	16½	7,824	5·05	394·74	300	271, 344
				Trixie of Enterprise ..	Sr. 3 yrs.	21147	8.6.29	273	24	9,365	4·90	458·70	275	274, 370
				Castlemaddie Cornflower 3rd	Jr. 2 yrs.	Vol. 16	20.6.29	273	10	3,447	6·07	209·08	200	
A. A. Broad, Sutton Grange	4	4	Jersey	Bunty 2nd of Coliban ..	Mature	15485	9.4.29	273	30	11,663	4·99	582·10	350	365, 442, 483, 558
				Grangelea Bunty 3rd ..	Jr. 2 yrs.	Vol. 16	12.4.29	273	21½	5,912	6·00	354·51	200	
				Grangelea Daisy 5th ..	Jr. 2 yrs.	Vol. 16	13.4.29	273	19	6,500	5·13	333·48	200	
				Grangelea Buttercup ..	Jr. 2 yrs.	Vol. 15	7.5.29	273	15	5,220	5·77	301·11	200	
A. L. Calder, Springhurst	3	..	Jersey	Wandilla Eventide ..	Jr. 2 yrs.	Vol. 16	2.4.29	240	4	2,310	5·69	131·50	200	
				Wandilla Twilight	Jr. 2 yrs.	Vol. 16	2.4.29	240	4	2,453	5·85	143·48	200	
				Wandilla Midnight ..	Jr. 2 yrs.	Vol. 16	31.5.29	240	4	3,030	5·63	170·71	200	
D. Cameron and Sons, Valencia Creek	3	3	Jersey	Studleigh Harebell ..	Sr. 2 yrs.	Vol. 16	9.5.29	273	21	6,972	6·14	428·33	225	
				Studleigh Harebell 2nd ..	Jr. 2 yrs.	Vol. 16	31.5.29	273	15	5,340	5·90	315·14	200	
				Trangaville Starbright Butter Queen	Jr. 2 yrs.	Vol. 16	8.6.29	273	19½	6,210	4·86	301·77	200	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
J. E. Chadderton, Hamilton	1	1	Jersey	Duchess 3rd of Glen Leigh ..	Sr. 3 yrs.	21176	6.4.29	273	15	6,311	4·78	301·82	275	233
Captain P. Chirnside, Oakleigh	1	1	Jersey	Werribee Attraction's Fancy Madeira	Mature	13337	27.5.29	273	17	7,851	5·65	443·24	350	329, 384, 481, 394
R. M. Chirnside, Whittlesea	2	2	Jersey	The Falls Air Beauty ..	Jr. 2 yrs.	24816	7.4.29	273	13	4,058	6·91	280·25	200	
				Clovelly Milkmaid ..	Jr. 2 yrs.	23033	5.5.29	273	18½	5,748	6·08	349·71	200	
C. Chitty, Kernot	1	1	Jersey	Ewelme Trixie	Jr. 2 yrs.	Vol. 16	27.6.29	273	8	3,689	6·89	254·05	200	
A. B. Clark, Glenormiston	1	1	Jersey	Belladonna 2nd of Springhurst	Jr. 3 yrs.	21600	30.3.29	273	17	6,938	5·64	391·41	250	292
W. J. Clark, Monomeith	1	1	Jersey	Lassie of Murta	Jr. 4 yrs.	21514	27.6.29	273	25	8,622	5·09	438·65	300	271, 254
J. Clyne, Upper Maffra West	9	9	Jersey	Paisley Poppy	Jr. 2 yrs.	Vol. 16	28.4.29	273	16	5,694	5·89	335·16	200	
				Jersey Vale Lupin ..	Jr. 2 yrs.	Vol. 16	1.5.29	273	17½	5,166	5·82	300·61	200	
				Jersey Vale Primula ..	Jr. 2 yrs.	Vol. 16	2.5.29	273	18	6,034	5·10	307·98	200	
				Jersey Vale Honeysuckle ..	Sr. 2 yrs.	Vol. 16	20.5.29	273	18	5,513	5·40	297·43	225	
				Jersey Vale Cowslip ..	Jr. 2 yrs.	Vol. 16	21.5.29	273	17½	6,777	4·90	331·83	200	
				Paisley Mistletoe	Jr. 2 yrs.	Vol. 16	8.6.29	273	17½	6,621	4·99	330·52	200	
				Jersey Vale Norma ..	Jr. 2 yrs.	Vol. 16	13.6.29	273	15	4,682	5·59	261·92	200	
				Jersey Vale Verbena ..	Jr. 2 yrs.	Vol. 16	16.6.29	273	15	5,424	5·08	275·67	200	
				Jersey Vale Laurel ..	Jr. 2 yrs.	Vol. 16	20.6.29	273	14	4,842	5·42	262·66	200	
W. and J. Cockbill, Bacchus Marsh	1	1	Ayrshire	Fulham Virtue	Mature	13340	1.4.29	273	14	7,700	4·67	359·75	350	323, 342

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
L. W. R. Colenso, Alvie	3	2	Jersey	Ilma of Hazelbrock ..	Sr. 4 yrs.	18668	11.4.29	273	25	9,068	4·90	444·11	325	
				Hawthorn of Belmont ..	Sr. 4 yrs.	18666	24.4.29	273	19½	7,857	5·53	434·73	325	
				Jean of Hazelbrock ..	Mature	13007	2.5.29	273	18	5,307	5·16	273·67	350	
T. A. P. Coombes, Tongala	1	1	Jersey	Ivinghoe Buttercup ..	Jr. 2 yrs.	Vol. 16	12.5.29	273	16½	4,943	5·43	268·40	200	
D. E. Cook, Loch	4	4	Jersey	Wattle Vale Wanda ..	Jr. 2 yrs.	Vol. 16	1.5.29	273	11½	4,269	6·01	256·53	200	
				Wattle Vale Cinderella 4th ..	Jr. 2 yrs.	Vol. 16	1.6.29	273	12½	4,493	5·57	250·30	200	
				Cootamundra of Wattle Vale	Mature	16629	8.6.29	273	15	6,186	6·37	394·33	350	271, 348, 368
				Wattle Vale Pride's Coquette	Sr. 2 yrs.	24308	10.6.29	273	17	5,603	5·53	309·70	225	
J. Cook, Toora	1	..	Jersey	Wood Golden Eclipse ..	Sr. 4 yrs.	21206	22.6.29	273	13	5,258	5·12	269·02	325	192, 288
C. Coughlin, Yannathan	1	1	Jersey	Aveley Lettie 2nd	Jr. 4 yrs.	24222	21.6.29	273	11½	5,563	5·43	302·03	300	267
H. Cowling, Mornington	2	2	Jersey	Edmonton Rarity 2nd ..	Jr. 3 yrs.	23048	25.4.29	273	14	5,044	6·08	306·84	250	353
				Edmonton Bee	Jr. 2 yrs.	Vol. 16	31.5.29	273	11½	3,932	6·81	267·70	200	
A. Cox, Kyabram	5	5	Jersey	Tavistock Clarionette ..	Mature	18457	15.4.29	273	22	6,362	6.22	395.79	350	
				Tavistock Vanilla's Maid ..	Mature	10183	9.5.29	273	23	7,136	5·42	386·69	350	
				Tavistock Melba's Lassie ..	Sr. 4 yrs.	23057	31.5.29	273	23	6,641	5·09	337·81	325	
				Tavistock Mabel's Queen ..	Sr. 3 yrs.	Vol. 16	19.6.29	273	15½	5,484	5·93	325·12	275	
				Honesty of Tavistock ..	Sr. 4 yrs.	21211	22.6.29	273	22½	6 836	5·09	348·18	325	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
E. E. Davis, Bass	2	..	Jersey	Canary's Pride	Mature	21263	16.5.29	273	13	5,634	4·69	264·44	350	282
				Molly of Murta	Jr. 4 yrs.	21213	25.6.29	210	4	4,650	4·68	217·51	300	262
J. Dee, Clyde North	1	1	Jersey	Clydevale Daphne	Jr. 2 yrs.	24330	4.6.29	273	11½	4,809	5·07	243·83	200	
N. C. De La Rue, Weering	3	2	Jersey	Beauty of Colac	Mature	14979	8.5.29	273	19½	6,474	5·27	341·06	350	210, 291, 280, 324
				Carnation of Colac	Mature	21239	8.5.29	273	24	8,723	5·08	443·43	350	267, 347, 316, 379
				Lucerne Vale Trixie 2nd ..	Sr. 2 yrs.	23087	22.5.29	273	23½	6,695	6·25	418·12	225	365
Department of Agriculture, Burnley	1	1	Friesian	Victoria Carraway	Mature	2066	8.4.29	273	34	12,023	3·31	397·84	350	273, 266, 354
Department of Agriculture, Werribee	4	4	Friesian	Victoria Piebe	Sr. 3 yrs.	Vol. 10	4.5.29	273	31	11,924	3·36	401·13	275	413
				Victoria Skirt	Jr. 2 yrs.	3264	15.5.29	273	26	8,607	3·64	313·07	200	
				Victoria Wedding Oak ..	Sr. 2 yrs.	3269	23.5.29	273	35	10,262	3·32	340·56	225	
				Victoria Top Patch ..	Sr. 3 yrs.	2634	6.6.29	273	7	8,496	3·74	317·99	275	202
Department of Agriculture, Werribee	6	6	Red Poll	Nictitana	Mature	311B	30.4.29	273	10	10,514	4·41	463·66	350	181, 385, 379, 381, 453, 470, 453, 526, 403, 381
				Victoria White Rose ..	Jr. 3 yrs.	1523AA	15.5.29	273	18	6,206	4·74	294·18	250	
				Victoria Basra	Mature	1145A	28.5.29	273	10½	7,586	5·06	383·71	350	302, 348
				Victoria Velvet Curl ..	Sr. 2 yrs.	1521A	31.5.29	273	20½	6,663	5·02	334·36	225	
				Victoria Amara	Sr. 4 yrs.	1649A	6.6.29	273	26½	9,080	4·91	445·39	325	321, 415
				Victoria Coronation ..	Mature	792B	21.6.29	273	16	9,626	3·88	373·05	350	308, 295, 375, 309, 338
Dickenson Bros., Sebastopol	4	4	Friesian	Ashby Primrose	Sr. 2 yrs.	2345	8.4.29	273	30	8,979	3·28	294·14	225	
				Ashby Queen Annette ..	Sr. 2 yrs.	2346	20.4.29	273	28	10,228	3·78	386·54	225	
				Ashby Queenie 5th ..	Sr. 3 yrs.	2093	29.4.29	273	31	10,157	3·62	367·58	275	
				Ashby Queenie 6th ..	Sr. 3 yrs.	2347	20.5.29	273	20½	7,478	3·94	294·68	275	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
Dookie Agricultural College, Dookie	3	2	Ayrshire	Scotswood Question ..	Mature	10315	19.4.29	240	18	7,545	4·97	374·73	350	210, 267, 323, 324
				Dookie Sonora ..	Sr. 2 yrs.	Vol. 21	27.5.29	273	..	7,319	4·15	303·65	225	
				Ditto of Medburn Grove ..	Mature	H579	15.6.29	240	4	8,220	3·93	322·94	350	256, 183, 353, 268
Dunbar Bros., Carlsruhe	1	..	Friesian	Wimmera Wildflower ..	Jr. 2 yrs.	2965	5.6.29	240	4	6,525	2·92	190·49	200	
G. Dwyer, Balwyn	1	1	Jersey	Hillcrest Linette	Jr. 2 yrs.	Vol. 16	5.5.29	273	18½	5,918	5·30	313·87	200	
A. E. Ellis, Archie's Creek	3	3	Jersey	Pearl of Blackwood Grove ..	Sr. 4 yrs.	21264	29.4.29	273	12	6,780	5·56	377·03	325	296, 362
				Bonnie Brae Sylvia	Sr. 2 yrs.	Vol. 16	19.6.29	273	13	6,522	5·20	339·43	225	
				Blackwood Grove Miss Skim ..	Sr. 3 yrs.	23122	22.6.29	273	17	7,688	4·99	383·38	275	320
A. E. Enders, Stanhope	1	1	Friesian	Burnbank Queen Violet ..	Jr. 2 yrs.	Vol. 11	20.4.29	273	22½	11,717	3·11	364·20	200	
N. H. Enders, Stanhope	4	4	Jersey	Buttercup of the Wattles ..	Mature	12910	9.5.29	273	20	9,527	5·78	550·54	350	430, 528
				Seville of Kelburn	Mature	12074	28.5.29	273	23	10,278	6·02	619·13	350	578
				The Wattles Romany Lass ..	Sr. 2 yrs.	Vol. 16	9.6.29	273	21½	7,302	6·11	446·39	225	
				Locklea Seville Orange ..	Sr. 3 yrs.	23401	26.6.29	273	26½	9,560	5·58	533·37	275	
Messrs. Fairchild and Clutterbuck, Tinamba	2	2	Jersey	Xavier Kirsty	Jr. 2 yrs.	Vol. 16	30.4.29	273	15	4,995	5·73	286·02	200	
				Enterprise Tilly	Jr. 3 yrs.	23131	11.5.29	273	17½	9,007	4·81	433·62	250	301
T. R. Findlay, Leitchville	1	1	Jersey	Rose of Colac	Mature	11986	17.4.29	273	24	7,097	5·83	414·00	350	303, 333, 368

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
W. Fixter, Boisdale	2	2	Jersey	Studleigh Vanilla 2nd ..	Sr. 2 yrs.	Vol. 16	31.5.29	273	18½	6,321	6·09	385·18	225	
				Creamy of Olivedale ..	Sr. 4 yrs.	18467	3.6.29	273	18	6,134	5·81	356·68	325	270, 297, 345
Foster Bros., Boisdale	3	2	Jersey	Countess 3rd of Springhurst ..	Mature	16965	7.4.29	273	16½	6,621	5·21	344·73	350	405, 403, 369
				Linda 72nd of King's Vale ..	Sr. 2 yrs.	21089	13.4.29	273	17	6,141	4·78	293·62	225	221
				Tulip 3rd of Springhurst ..	Mature	16973	17.6.29	273	7½	7,560	4·88	368·64	350	328, 393, 471
N. Gange, Berrybank	2	..	Ayrshire	Balm 5th of Carracoorte ..	Mature	9307	14.4.29	273	4	7,206	3·94	284·20	350	333, 375, 383, 358
				River Glen Cherry	Sr. 2 yrs.	16565	2.6.29	240	4	4,590	4·64	213·02	225	164
Gibson Bros., Trafalgar	5	5	Jersey	St. Alban's Junette ..	Mature	Vol. 16	9.5.29	273	18	7,640	5·36	409·15	350	474
				Leathorne Buttercup 4th ..	Jr. 2 yrs.	24361	1.6.29	273	11	3,525	6·54	230·68	200	
				Leathorne Spring Daisy ..	Jr. 2 yrs.	24372	6.6.29	273	15	5,657	6·04	341·70	200	
				Leathorne Cream Belle ..	Jr. 2 yrs.	24363	14.6.29	273	15½	5,706	5·35	305·43	200	
				Leathorne Atrractive ..	Sr. 3 yrs.	24359	17.6.29	273	14½	6,342	4·99	316·30	275	282
R. Goodman, Kilmany South	2	..	Ayrshire	Roseneath Gem	Sr. 3 yrs.	16591	31.3.29	240	4	3,540	4·07	144·20	275	109
				Roseneath Countess ..	Sr. 2 yrs.	Vol. 22	18.4.29	240	4	4,215	4·22	177·87	225	
A. W. Gorman, Alexandra	2	1	Ayrshire	Cathcart Mabel	Sr. 2 yrs.	15867	22.5.29	273	16	5,600	4·25	237·82	225	
				Laurel of Cathcart ..	Mature	12143	22.5.29	240	4	7,020	4·02	281·90	350	246, 347, 295, 292
E. Hall, Tongala East	2	1	Jersey	The Valley Poppy ..	Sr. 3 yrs.	23174	4.5.29	273	15½	3,908	5·94	232·32	275	211
				Violet of Melwood ..	Sr. 3 yrs.	21308	24.5.29	273	13	6,128	5·59	342·35	275	247, 265

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
S. C. Handley, Dandenong	1	1	Jersey	Sunbeam of Enterprise ..	Mature	19021	19.6.29	273	19½	7,667	5·73	439·63	350	417
J. E. Handbury and Sons, Toora	7	7	Jersey	Tooravale Maid's Princess ..	Sr. 2 yrs.	23188	8.4.29	273	16½	5,211	6·14	320·11	225	242
				Tooravale Lassie Fowler 2nd	Sr. 3 yrs.	23187	1.5.29	273	16	6,219	5·89	366·15	275	293
				Tooravale Star	Jr. 2 yrs.	Vol. 16	19.5.29	273	9	4,176	6·24	260·65	200	
				Lassie Fowler of Tooravale ..	Sr. 4 yrs.	18728	21.5.29	273	16	6,978	5·83	406·85	325	313, 379
				Tooravale Starleigh 2nd ..	Sr. 3 yrs.	23193	16.6.29	273	8	6,990	6·12	427·49	275	303, 405
				Tooravale May 2nd.. ..	Sr. 2 yrs.	23189	18.6.29	273	18	7,898	5·19	409·83	225	281
				Lassie of Strathbow ..	Mature	12205	20.6.29	273	21	8,859	5·18	458·60	350	237, 408, 346, 610, 542, 620
D. C. Harker, Caldermeade	1	..	Ayrshire	Thirlmere Lorna Doone ..	Jr. 3 yrs.	16844	21.4.29	30*	14	855	3·99	34·11	250	
W. Harker, Caldermeade	3	1	Ayrshire	Wayside Tottie	Jr. 3 yrs.	16902	24.5.29	273	4	5,117	3·82	195·49	250	215
				Coonawarra Pearl	Jr. 2 yrs.	19784	25.5.29	273	4	5,052	3·75	189·69	200	
				Sparrovale Violet ..	Jr. 2 yrs.	18935	1.6.29	273	16½	5,717	4·07	232·92	200	
C. W. Harris Merino	4	3	Jersey	Goulburn Duchess 8th ..	Jr. 2 yrs.	23197	13.4.29	273	15	6,051	5·91	357·82	200	327
				Velveteen of Clover Flat ..	Sr. 4 yrs.	19927	19.4.29	273	17	6,639	5·09	337·76	325	263, 268
				Duchess 7th of Goulburn ..	Sr. 3 yrs.	21318	31.5.29	273	6½	4,686	5·49	257·25	275	247, 277
				Dunalister Mirth Maker ..	Sr. 3 yrs.	21319	23.6.29	273	10	5,801	6·06	351·52	275	260, 313
F. Harrison, Frankston	1	1	Jersey	Walbundry Delta Francie ..	Jr. 2 yrs.	Vol. 16	28.4.29	273	15½	4,631	5·35	247·56	200	
T. Harvey, Boisdale	2	2	Jersey	Empress 7th of Jerseyholm..	Sr. 3 yrs.	18734	4.5.29	273	15½	6,701	5·02	336·23	275	139, 304
				Empress 4th of Jerseyholm..	Mature	13356	30.5.29	273	20½	7,752	5·22	404·97	350	383, 385

* Withdrawn from test.

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
H. R. Heard, Derrinallum	3	2	Ayrshire	Craigmore Thelma	Sr. 2 yrs.	15909	24.4.29	273	9½	6,404	4·56	292·04	225	
				Craigmore Leila	Jr. 2 yrs.	17687	6.5.29	273	9½	5,877	4·03	236·98	200	
				Craigmore Myrtle	Jr. 2 yrs.	17688	16.6.29	273	8½	4,407	4·31	189·79	200	
W. Henderson, Grasmere Home Farm	1	..	Ayrshire	Lady Kathleen of Gleneira ..	Mature	8440	13.5.29	273	15½	7,997	3·75	300·20	350	233, 256, 330
W. Henderson, Grasmere Share Farm	6	4	Ayrshire	Carracoorte Sparkle 6th ..	Sr. 2 yrs.	15862	26.4.29	273	11	6,869	4·05	277·91	225	
				Carracoorte Rosebloom 12th	Sr. 2 yrs.	17476	30.4.29	240	4	3,660	4·21	154·19	225	
				Carracoorte Balm 10th ..	Sr. 2 yrs.	17437	25.5.29	273	8½	5,400	4·59	248·05	225	
				Carracoorte Bunty 9th ..	Sr. 2 yrs.	17453	27.5.29	273	8	5,055	4·58	231·44	225	
				Carracoorte Betsy 19th ..	Sr. 2 yrs.	17445	5.6.29	273	12	5,708	4·33	247·06	225	
				Carracoorte Bellona 9th ..	Sr. 2 yrs.	17440	11.6.29	273	10	4,890	4·05	198·28	225	
A. J. Hitchins, Werribee Sth.	1	1	Jersey	Laane Flash	Mature	19910	19.6.29	273	..	7,598	4·76	362·02	350	312
A. Hubbard, Yarra Glen	4	1	Ayrshire	Mary of Sunnyside ..	Mature	10642	17.5.29	273	10½	6,248	4·77	298·15	350	391
				Emoh Ruo Diana	Sr. 2 yrs.	15977	27.6.29	273	16½	6,395	4·52	289·35	225	
				Emoh Ruo Lotus	Sr. 2 yrs.	15978	7.6.29	240	4	4,560	4·93	224·77	225	
				Emoh Ruo Purity 2nd ..	Sr. 2 yrs.	15981	8.6.29	240	4	4,470	4·60	205·77	225	
J. A. Huffer, Gormandale	4	4	Jersey	Sunny Brae Royal Rose ..	Sr. 3 yrs.	Vol. 16	21.4.29	273	16	5,465	5·42	296·25	275	
				Rosebud 2nd of Paradise ..	Mature	13798	17.5.29	273	29	9,392	5·52	518·10	350	399, 401, 418, 524
				Glen Valley Rosebloom ..	Jr. 2 yrs.	Vol. 16	4.6.29	273	15	4,652	5·81	270·13	200	
				Glen Valley Quick Sand ..	Jr. 3 yrs.	23218	25.6.29	273	21	8,298	5·68	471·44	250	331
W. H. Hurry, Koonwarra	1	1	Jersey	Kooreena Minerva 2nd ..	Jr. 2 yrs.	Vol. 16	4.6.29	273	13½	4,601	6·28	288·98	200	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
J. Hutchinson and Son, Somerville	2	2	Jersey	Somerville Beauty 7th ..	Jr. 2 yrs.	Vol. 16	1.4.29	273	24	6,671	4·90	327·14	200	
				Wynette of Somerville ..	Sr. 4 yrs.	18759	15.3.29	273	34½	10,774	5·13	552·17	325	403, 566
G. A. Kent, Archie's Creek	2	2	Ayrshire	Pet of Woolamai Park ..	Mature	12358	4.4.29	273	18½	8,775	4·24	372·01	350	264, 265, 334
				Peerees of Woolamai Park ..	Mature	11156	3.6.29	273	15	7,785	4·89	380·88	350	237, 271, 281, 361
T. Knowles, Dandenong	1	1	Ayrshire	Mab of Beleura	Sr. 4 yrs.	14233	10.4.29	273	14½	7,655	4·76	364·48	325	290
Koenig Bros., North Mooroopna	1	1	Ayrshire	Oakbank Desire	Sr. 3 yrs.	18726	3.4.29	273	23	8,726	4·15	362·38	275	
P. H. Lawrence, Tarrawarra	4	3	Jersey	Rainga Mercedes' Mascotte ..	Jr. 2 yrs.	24440	29.4.29	273	16	5,105	5·65	288·57	200	
				Rainga Mercedes Golden Princess	Sr. 2 yrs.	24439	11.5.29	273	18½	6,195	5·21	322·70	225	
				Rainga Royal Duchess ..	Sr. 2 yrs.	24444	20.5.29	273	8¼	3,222	6·04	194·49	225	206
				Rainga Lily's Mercedes ..	Sr. 2 yrs.	24438	17.6.29	273	15	5,087	5·93	301·81	225	
Mrs. E. M. Lennie, Tongala	2	2	Jersey	Buttercup of Jersey Vale ..	Mature	11657	7.4.29	273	14	7,857	5·29	415·35	350	187, 323, 352, 262, 248, 521
				Myra 3rd of the Valley ..	Mature	18494	7.6.29	273	20	8,718	4·04	431·04	350	328, 366, 386
Longerenong Agricultural College, Dooen	5	3	Ayrshire	Holly of Longerenong ..	Mature	12432	15.4.29	273	11¼	7,212	3·92	282·72	350	287, 367, 322
				Longerenong Acacia ..	Jr. 2 yrs.	Vol. 22	22.4.29	273	13¼	5,790	4·99	288·78	200	
				Longerenong Golden Wattle	Jr. 2 yrs.	20483	26.4.29	273	13	5,403	5·00	270·38	200	
				Plume of Longerenong ..	Mature	13824	9.5.29	273	13	7,098	4·39	311·94	350	251, 221, 276
				Longerenong Coboea ..	Jr. 3 yrs.	18467	17.5.29	273	12	5,916	4·64	274·22	250	289

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
Mrs. L. Lowing, Tongala	1	1	Jersey	Tulip 2nd of the Valley ..	Mature	15541	4.4.29	273	30	8,243	4·52	372·30	350	229, 294, 301
C. G. Lyon, Heidelberg	2	2	Jersey	Molly 22nd of Banyule ..	Jr. 3 yrs.	18809	4.4.29	273	12	5,229	5·70	298·31	250	301
				Tiddlewinks 2nd of Banyule	Jr. 3 yrs.	18822	7.4.29	273	19	7,274	5·84	424·60	250	342
Miss C. E. McClelland, Tunstall	1	1	Jersey	Peggy of the Elms	Sr. 4 yrs.	21446	26.5.29	273	18	7,845	4·55	356·64	325	237, 313
J. McErvale and Sons, Camperdown	3	2	Jersey	Cumnock Noble Lady ..	Jr. 4 yrs.	17461	1.4.29	273	12	6,506	4·53	294·64	300	
				Pearl of Glenallwyn ..	Mature	13380	20.5.29	273	21	7,368	5·63	415·08	350	
				Carranballac Lady Carson's Fancy	Jr. 4 yrs.	Vol. 16	25.5.29	273	20	6,435	5·46	351·21	300	
H. V. MacLeod, Tyrendarra	1	..	Jersey	Craft of Comely Banks ..	Sr. 4 yrs.	18707	17.5.29	240	4	3,795	5·94	225·51	325	345
G. A. McNabb and Son, Irrewillipe East	5	5	Jersey	Hakea of Springhurst ..	Jr. 4 yrs.	18930	21.4.29	273	23	8,696	4·30	374·15	300	225, 262
				Lodestone of Springhurst ..	Sr. 4 yrs.	21608	22.4.29	273	22¼	8,627	5·66	488·26	325	357, 418
				Tiare of Springhurst ..	Sr. 3 yrs.	21610	2.6.29	273	19½	8,745	5·30	463·61	275	436
				Comfrey 2nd of Springhurst ..	Sr. 3 yrs.	21605	5.6.29	273	9	6,274	5·08	318·75	275	172, 318
				Ranunculus 2nd of Springhurst	Jr. 4 yrs.	18937	20.6.29	273	16½	5,916	5·88	347·96	300	311, 368
Mesdames McWhae and Silvester, Merino	3	2	Guernsey	Wollongbar Leonie 6th ..	Sr. 3 yrs.	1424	30.3.29	273	16	5,247	5·54	290·51	275	292
				Yarra View Meadow Sweet ..	Mature	1269	3.4.29	273	10	6,273	4·79	300·35	350	208, 287
				Yarra View Maud	Jr. 4 yrs.	1268	2.5.29	273	13	5,330	5·68	302·72	300	296, 331
Maher Bros., Seymour	2	..	Ayrshire	Carlisle of Evelyn	Sr. 4 yrs.	13849	3.5.29	273	16	7,089	4·27	302·97	325	309
				Brunette of Gowrie Park ..	Mature	13848	15.6.29	210	4	6,540	4·32	282·44	350	378

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
Dr. Ramsay Mailer, Shepparton	2	2	Jersey	Coolwoola Marchfly's Lady ..	Sr. 2 yrs.	Vol. 16	16.4.29	273	18	5,291	5·12	270·91	225	
				Coolwoola Montrose Pearl's Girl	Sr. 2 yrs.	Vol. 16	16.4.29	273	20	5,573	4·95	275·80	225	
A. R. Marshman, Archie's Creek	1	1	Jersey	Dawn of Wattle Vale ..	Mature	15553	10.5.29	273	15½	7,302	4·89	356·80	350	
R. Masters, Swan Hill	2	2	Ayrshire	Grandview's Ella	Jr. 2 yrs.	Vol. 22	8.4.29	273	4	5,423	4·12	223·44	200	
				Muriel of Evergreen ..	Mature	11055	26.5.29	273	15	9,985	4·03	402·83	350	388
S. Meadowcroft, Stanhope	4	4	Jersey	Irymple Twinkle	Jr. 2 yrs.	Vol. 16	5.4.29	273	17½	5,186	6·17	319·93	200	
				Lochlea Roseleaf	Jr. 4 yrs.	23400	19.5.29	273	19	6,941	5·38	373·42	300	475
				Irymple Carmen	Sr. 3 yrs.	23314	4.6.29	273	13	5,251	5·99	314·37	275	
				Venus of Irymple	Mature	21503	6.6.29	273	18½	6,896	5·43	374·38	350	
T. Mesley, Dalyston	1	1	Jersey	Dal-Monte of Warenda ..	Sr. 4 yrs.	21512	16·6·29	273	20	8,147	5·25	427·90	325	279
J. Moore and Co., Yarram	1	1	Jersey	Maiden of Comely Banks ..	Sr. 4 yrs.	18708	19.5.29	273	11	5,966	5·45	325·07	325	
Mrs. L. Neyland, Ballarat	2	1	Jersey	Clarendon Eyre Princess Ida	Sr. 3 yrs.	24527	30.4.29	273	17	5,460	5·14	280·45	275	231
				Countess 3rd of Lesterfield ..	Mature	12164	30.4.29	273	17	6,212	5·58	346·87	350	315, 386, 373
E. Nicholls, Springhurst	10	7	Jersey	Beckie 2nd of Blowering ..	Sr. 4 yrs.	18875	4.4.29	273	10	5,273	5·94	313·43	325	299
				Nickel Bar Shirley Poppy ..	Jr. 2 yrs.	Vol. 16	4.5.29	273	7½	3,810	6·41	244·39	200	
				Nickel Bar Dewdrop ..	Sr. 2 yrs.	24529	7.5.29	273	7½	3,342	6·78	294·56	225	270
				Phoebe of Blowering ..	Sr. 4 yrs.	18878	8.5.29	273	13½	3,339	5·74	364·01	325	370
				Topsy 3rd of Blowering ..	Sr. 4 yrs.	18880	8.5.29	273	4	3,923	5·42	266·99	325	325
				Daisy Bell of Blowering ..	Sr. 4 yrs.	18876	10.5.29	273	4½	3,814	4·95	238·38	325	251
				Nickel Bar Queenie ..	Jr. 2 yrs.	Vol. 16	10.5.29	273	3	3,736	6·13	228·85	200	
				Nickel Bar Blue Bell ..	Jr. 2 yrs.	Vol. 16	18.5.29	273	4	3,988	5·48	218·60	200	
				Nickel Bar Venus	Sr. 2 yrs.	24531	18.6.29	273	4	3,543	5·63	255·89	225	224
				Nickel Bar Gipsy	Jr. 2 yrs.	Vol. 16	20.6.29	273	4	3,714	5·89	218·79	200	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
B. R. O'Meara, Caldermeade	1	1	Ayrshire	Leila of Hillcrest	Mature	9083	22.4.29	273	25½	9,735	4·53	441·25	350	189, 209, 260, 272, 266, 257
Mrs. L. Orchard, Grahamvale	3	..	Jersey	Jersey Vale Gaiety ..	Sr. 3 yrs.	24536	9.5.29	273	17	4,530	4·73	214·33	275	
				Poppy of Jersey Vale ..	Mature	15582	9.6.29	273	20	6,845	4·18	285·86	350	196, 234, 311
				Patty of Jersey Vale ..	Sr. 3 yrs.	Vol. 16	11.6.29	210	4	4,140	4·64	192·24	275	
Mrs. A. C. Overend, Sale	3	1	Jersey	Peggy of Bon Accord ..	Sr. 3 yrs.	21545	12.4.29	273	16½	6,333	5·75	363·89	275	260, 353
				Kirsty 18th of Jerseyholm ..	Sr. 4 yrs.	18738	14.5.29	273	8	5,046	5·59	282·06	325	280
				Sparkle 10th of Jerseyholm..	Sr. 4 yrs.	18774	20.6.29	273	11	5,795	5·15	298·43	325	316, 384
W. Parbury, Warburton	5	5	Jersey	Golden Leaf 12th of Brookfield	Jr. 2 yrs.	21556	6.5.29	273	21½	6,560	5·38	352·89	200	
				Sunshine 9th of Brookfield ..	Sr. 3 yrs.	18900	9.5.29	273	15	5,615	5·32	298·58	275	195, 271
				Golden Leaf 10th of Brookfield	Sr. 3 yrs.	21555	8.6.29	273	21	6,589	5·44	358·72	275	262
				Verbena 8th of Brookfield ..	Sr. 4 yrs.	18901	15.6.29	273	27½	8,308	5·42	449·95	325	332, 300
				Songstress 9th of Brookfield	Jr. 3yrs.	21570	16.6.29	273	16	5,080	5·16	262·02	250	233
J. Phillips, Murraydale	2	1	Jersey	Peri Empire 2nd	Sr. 2 yrs.	23362	6.4.29	273	15	5,729	5·69	326·25	225	266
				Empire of Peri	Mature	18913	11.5.29	273	16	5,243	5·83	305·73	350	309, 206, 314
J. Plattfuss, Tongala	2	1	Friesian	Greenvale Juno Cordyline ..	Sr. 2 yrs.	3103	11.4.29	273	25	7,389	3·37	249·10	225	
				Riverbank Ideal Ashlyn ..	Sr. 3 yrs.	2242	23.4.29	240	23½	5,910	3·59	212·29	275	290
Messrs. Quigley and Bennett, Yinnar	1	..	Jersey	Kirsty 13th of Jerseyholm ..	Mature	12944	27.4.29	273	16½	6,363	4·88	310·74	350	345, 295, 332
F. Raggatt, Tongala	2	2	Jersey	Our Pines Daisy Belle ..	Sr. 2 yrs.	24451	25.5.29	273	15½	5,147	5·26	270·84	225	263
				Strathbow Princess 6th ..	Jr. 2 yrs.	Vol. 16	7.6.29	273	14	5,615	4·68	262·55	200	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
Miss H. E. Raleigh, Pakenham Upper	1	1	Jersey	Goronga Farm Queen of Trumps	Jr. 2 yrs.	Vol. 16	14.4.29	273	16	4,905	5·62	275·75	200	
J. D. Read, Springhurst	8	8	Jersey	Nardoo of Springhurst ..	Sr. 3 yrs.	18936	30.3.29	273	14	6,592	5·86	386·38	275	301, 458
				Springhurst Tulip 5th ..	Jr. 2 yrs.	24569	4.4.29	240*	13½	3,730	5·84	217·72	200	
				Tulip 2nd of Springhurst ..	Mature	9667	9.4.29	273	17	8,902	5·34	475·89	350	316, 278, 517, 438, 584, 462, 513
				Azalea 2nd of Springhurst ..	Mature	16961	12.4.29	273	20½	7,372	6·03	444·86	350	312, 351, 567
				Gladiolus of Springhurst ..	Mature	12216	20.4.29	273	30	10,707	5·61	600·25	350	341, 479, 542, 547, 443
				Springhurst Medick 2nd ..	Sr. 2 yrs.	24565	20.5.29	273	13½	5,470	6·67	365·05	225	293
				Tomato of Springhurst ..	Jr. 4 yrs.	18939	18.6.29	273	30½	11,283	5·35	603·58	300	302, 533
				Alsyke 2nd of Springhurst ..	Mature	10437	21.6.29	273	17	7,359	5·93	436·69	350	255, 291, 487, 328, 541, 350, 536
C. N. Runciman, Murraydale	1	1	Jersey	Maudie of Greenwood ..	Mature	16712	10.5.29	273	17½	6,939	5·54	384·21	350	278, 379
D. M. Ryan, Pirron Yallock	1	1	Illawarra Milking Shorthorn	Shamrock of the Pines ..	Jr. 2 yrs.	16130	20.4.29	273	26	7,973	4·19	333·70	200	
A. H. Schier, Kernot	8	1	Ayrshire	Scotswood Myra	Mature	14158	31.3.29	273	13	5,703	4·12	234·71	350	196, 263, 237, 172
				Scotswood Gold Tip ..	Jr. 2 yrs.	18916	21.4.29	273	19	5,477	4·02	220·28	200	
				Dulcie of Ayr Brae ..	Mature	12551	17.5.29	273	11	8,342	4·02	334·95	350	
				Scotswood May	Jr. 2 yrs.	18925	17.5.29	273	7½	2,919	4·57	133·46	200	
				Ayr Brae Marjory	Sr. 3 yrs.	15684	19.5.29	273	10	4,657	3·89	181·23	275	
				Pearl of Ayr Brae ..	Mature	12557	7.6.29	180	4	4,080	3·58	146·14	350	
				Ben Kell Peace	Jr. 2 yrs.	17316	16.6.29	273	11	4,230	4·09	173·21	200	
				Meg of Ayr Brae	Mature	12555	18.6.29	273	13½	8,630	3·96	341·80	350	

* Sold before completion of term.

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
A. J. Schlipalius, Kilmany South	2	1	Jersey	Fairbank Queenie	Jr. 2 yrs.	24598	29.4.29	273	..	3,486	5·49	191·41	200	
				Fairbank Flower	Sr. 2 yrs.	23432	19.5.29	273	12½	4,111	6·16	253·24	225	
T. J. Scott, Rochester	1	1	Jersey	Preston Heath	Sr. 2 yrs.	Vol. 16	1.5.29	273	23½	6,776	4·77	323·18	225	
C. H. Sell, Irrewillipe East	4	4	Jersey	Avalon Mercedes' Buttercup 11th	Sr. 2 yrs.	22941	15.4.29	273	12½	5,219	5·46	284·70	225	
				Avalon Mercedes' Duchess 2nd	Jr. 3 yrs.	22942	27.5.29	273	18½	7,112	5·09	361·76	250	
				Avalon Mercedes' Beauty 2nd	Sr. 2 yrs.	22934	29.5.29	273	10¼	4,552	6·44	293·36	225	
				Bolinda's Handsome Girl of Linga Longa	Mature	16598	12.6.29	273	12½	6,215	6·87	426·96	350	249, 276, 371
Dr. S. V. Sewell, Road's End, Berwick	4	3	Friesian	Road's End Rhode ..	Jr. 3 yrs.	3200	16.6.29	273	18½	8,583	3·32	285·38	250	
				Road's End Asphodel ..	Jr. 2 yrs.	3197	18.6.29	273	18	8,912	3·58	318·97	200	
				Burnbank Sylvia Cordele ..	Sr. 4 yrs.	2394	20.6.29	273	14	4,890	3·71	181·62	325	
				Road's End Alinda ..	Sr. 2 yrs.	3196	23.6.29	273	15½	8,801	3·66	322·10	225	
C. L. V. Sharp, Murrabit	1	..	..	Burnbank Manor Kroons ..	Sr. 4 yrs.	2381	7.6.29	273	24	9,119	3·48	316·95	325	189, 300
T. E. Simpson and Son, Lower Ferntree Gully	1	..	Jersey	Wompini Beauty	Jr. 3 yrs.	Vol. 17	1.6.29	273	14½	5,831	5·29	308·18	250	
J. R. Smethurst, Thorpdale	2	2	Jersey	Jess 6th of Clarendon Eyre ..	Mature	16339	4.6.29	273	13	9,084	5·01	455·31	350	358, 411
				Aveley Flicker	Sr. 3 yrs.	23440	12.6.29	273	7	5,244	5·75	301·53	275	318
Smith and Sons, Woodend	1	..	Friesian	Cottesloe Woodcrest Maid ..	Mature	2411	28.5.29	240	4	6,255	3·86	241·41	350	329

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
O. J. Syme, Macedon	3	3	Friesian	Springfield No. 9	Mature	1071	14.4.29	273	63	21,209	4·05	859·52	350	357, 487, 575, 598, 605
				Bolobek Trixy	Sr. 4 yrs.	2106	5.6.29	273	40	18,219	4·04	736·07	325	545, 555
				Bolobek Trinette	Jr. 2 yrs.	2670	15.6.29	273	23	8,637	3·99	344·62	200	
Telford Bros., Kyabram	1	1	Ayrshire	Dorothy of Hyde Park ..	Mature	10507	30.5.29	273	19½	9,008	4·01	361·55	350	309
J. T. Tweddle, Berwick	1	1	Friesian	Winlaton Violet Beets ..	Jr. 2 yrs.	3286	15.4.29	273	24	7,095	3·26	231·53	200	
J. Unthank, Somerville	1	1	Jersey	Silver Maid 2nd of Glenwood	Mature	19003	19.6.29	273	21½	8,705	6·14	534·88	350	
Mrs. F. E. Vale, Yarram	1	..	Jersey	Sunshine 4th of Brookfield ..	Mature	17814	15.6.29	273	8½	5,212	4·24	220·96	350	243, 276
D. Wadelton, Loch	1	1	Ayrshire	Dalblair Holly	Jr. 2 yrs.	19806	10.6.29	273	16½	7,190	4·21	302·79	200	
A. Wallace, Bendigo	1	1	Ayrshire	Spring Dale Hope	Jr. 3 yrs.	15624	12.5.29	273	13½	7,319	3·60	263·69	250	
Walsh Bros., Lyndhurst	3	1	Red Poll	Victoria Bel Tamo	Mature	1148	24.4.29	273	24	7,134	4·00	285·67	350	336, 349
				Victoria Crater	Sr. 4 yrs.	1752B	27.4.29	273	19½	7,586	4·22	319·92	325	244, 272
				Victoria Magneto	Jr. 4 yrs.	1661A	11.5.29	273	18	8,504	4·31	366·10	300	319, 354
H. Watson, Leongatha	3	3	Jersey	Kitty's 5th Duchess of Round Hill	Jr. 4 yrs.	21335	2.4.29	273	20½	6,711	5·49	368·25	300	
				Stumpy 2nd of Round Hill..	Mature	16223	26.5.29	273	19½	7,037	5·85	411·82	350	
				Stumpy's Queen of Round Hill	Jr. 4 yrs.	21340	2.6.29	273	14½	5,156	6·15	316·87	300	

STANDARD HERD RECORDS—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lb.
									lb.	lb.		lb.	lb.	
H. L. Webb, Sunbury	1	..	Ayrshire	Romance of Holly Green ..	Jr. 4 yrs.	14281	29.4.29	273	12	7,412	3·83	283·85	300	232, 288
S. K. Webb, Neerim	1	..	Jersey	Pearl 13th of Melrose ..	Mature	15050	6.6.29	273	16	6,104	5·32	324·56	350	320, 397, 329, 359
A. W. H. White, Echuca	1	..	Milking Shorthorn	Selma 5th of Darbalara ..	Mature	12693	25.4.29	273	13½	5,891	3·95	232·70	350	
R. S. Williams, Kongwak	1	..	Jersey	Eurangee Starbright 2nd ..	Sr.2 yrs.	Vol. 16	21.6.29	273	9	4,032	5·57	224·70	225	
A. C. Willis, Paschendale	2	1	Jersey	Dainty Lass of Carney Dell ..	Jr. 4 yrs.	19022	6.5.29	273	13½	6,776	4·21	285·13	300	205, 315
				Cream Belle 2nd of St. Albans	Jr. 3 yrs.	Vol. 16	21.5.29	273	7	4,836	5·42	262·35	250	
D. C. Wilson, Derrinallum	3	2	Jersey	Ayton Law Nobel Topsy ..	Jr. 3 yrs.	21748	13.5.29	273	16	7,190	4·82	346·68	250	247
				Silvie's Fern of Kinross ..	Sr. 3 yrs.	21751	9.6.29	273	19	8,247	5·14	424·21	275	357
				Silvie of Titanga	Mature	9718	17.6.29	273	11	6,896	4·40	303·74	350	315
J. V. M. Wood, Heidelberg	3	3	Jersey	Clarendon Eyre Tangerine ..	Jr. 2 yrs.	Vol. 16	24.4.29	273	22½	6,118	5·79	354·07	200	
				Clarendon Eyre Firefly ..	Jr. 2 yrs.	Vol. 16	27.4.29	273	22	6,473	4·53	293·01	200	
				Clarendon Eyre Romany Lass	Jr. 3 yrs.	Vol. 16	23.5.29	273	15½	5,204	6·34	330·07	250	
W. Woodmason, Oakleigh	2	2	Jersey	Melrose Empire 9th ..	Mature	23529	17.4.29	273	19	6,645	5·77	383·58	350	343, 446, 410, 450
				Rarity 14th of Melrose ..	Mature	19987	23.4.29	273	21½	7,413	5·33	395·29	350	448, 449

STALLION PARADES.

TIME TABLE 1930.

Provided that the applications for registration received indicate that a horse will be in attendance there for examination, a parade will be held at each of the following places:—

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
Every Saturday from July 5 to December 20	Agricultural Offices	10 a.m.		
No. 1.				
Mon., July 21	Tungamah Rly. Stn.	12.42 p.m.	12.42 p.m.	8.57 p.m.
Tues., July 22	Yarrawonga, Shire Office	11 a.m.	9.30 p.m. (21st)	2.45 p.m.
Tues., July 22	Goorambat Rly. Stn.	4.35 p.m.	[4.35 p.m.	Driving
Wed., July 23	Benalla Rly. Stn.	9.30 a.m.	Driving	11.23 a.m.
Wed., July 23	Rutherglen Rly. Stn.	2 p.m.	1.35 p.m.	7.35 a.m. (24th)
Thurs., July 24	Barnawartha Rly. Stn.	2 p.m.	1.21 p.m.	3.30 p.m.
No. 2.				
Tues., July 22	Sea Lake, Royal Hotel	10 a.m.	6.45 p.m. (21st)	9.50 a.m. (23rd)
Tues., July 22	Nandaly Rly. Stn.	12 noon	Driving	Driving
Tues., July 22	Culgoa, Kaneira Hotel	3.30 p.m.	Driving	Driving
Wed., July 23	Wycheproof Rly. Stn.	12 noon	12 noon	12.25 p.m.
No. 3.				
Tues., July 22	Natimuk Rly. Stn.	11.5 a.m.	11.5 a.m.	11.30 a.m.
Tues., July 22	Goroke Rly. Stn.	1.15 p.m.	1.15 p.m.	6 p.m.
Tues., July 22	Edenhope, Sale Yards	3.30 p.m.	Driving	Driving
Wed., July 23	Horsham, Young Bros'. Sale Yards	9 a.m.	9.5 p.m. (22nd)	12.5 p.m.
Wed., July 23	Ararat Rly. Stn.	3.5 p.m.	3.5 p.m.	9.33 p.m.
Thurs., July 24	Stawell Rly. Stn.	10 a.m.	10.5 p.m. (23rd)	2.23 p.m.
No. 4.				
Mon., July 28	Maryborough Rly. Stn.	2 p.m.	12.30 p.m.	10.20 p.m.
Tues., July 29	Mildura Rly. Stn.	10 a.m.	7.25 a.m.	8 a.m. (30th)
Tues., July 29	Carwarp Rly. Stn.	11.30 a.m.	Driving	Driving
Tues., July 29	Werrimull Rly. Stn.	3 p.m.	Driving	Driving
Wed., July 30	Ouyen, Show Grounds	10.15 a.m.	10.12 a.m.	Driving
Wed., July 30	Tiega Rly. Stn.	11 a.m.	Driving	Driving
Wed., July 30	Galah Rly. Stn.	11.15 a.m.	Driving	Driving
Wed., July 30	Walpeup Rly. Stn.	11.45 a.m.	Driving	Driving
Wed., July 30	Torrita Rly. Stn.	12 noon	Driving	Driving
Wed., July 30	Underbool Rly. Stn.	12.15 p.m.	Driving	Driving
Wed., July 30	Linga Rly. Stn.	1.15 p.m.	Driving	Driving

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 4—*contd.*				
Wed., July 30	Boinka Rly. Stn. ..	1.30 p.m.	Driving ..	Driving
Wed., July 30	Tutye Rly. Stn. ..	2 p.m. ..	Driving ..	Driving
Wed., July 30	Cowangie Rly. Stn.	2.30 p.m.	Driving ..	Driving
Wed., July 30	Danyo Rly. Stn. ..	2.45 p.m.	Driving ..	Driving
Wed., July 30	Murrayville Rly. Stn.	3 p.m. ..	Driving ..	Driving
Wed., July 30	Carina Rly. Stn. ..	3.30 p.m.	Driving ..	Driving
Wed., July 30	Panitya Rly. Stn. ..	4 p.m. ..	Driving ..	Driving
No. 5.				
Mon., July 28	Kyabram, Show Grounds	12.30 p.m.	12 noon ..	Driving
Mon., July 28	Tongala, Sale Yards	2 p.m. ..	Driving ..	4.42 p.m.
Tues., July 29	Tatura, Show Grounds	3.30 p.m.	5.33 p.m. (28th)	5.33 p.m.
Wed., July 30	Euroa Rly. Stn. ..	10.20 a.m.	10.20 a.m. ..	11.1 a.m.
Wed., July 30	Seymour Rly. Stn.	1.30 p.m.	12.2 p.m. ..	5.55 p.m.
Thurs., July 31	Wangaratta, Show Grounds	9 a.m. ..	8.14 p.m. (30th)	Driving
Thurs., July 31	Moyhu	11 a.m. ..	Driving ..	Driving
Thurs., July 31	Myrtleford Rly. Stn.	1 p.m. ..	Driving ..	Driving
Thurs., July 31	Beechworth Rly. Stn.	2.30 p.m.	2.30 p.m. ..	3.3 p.m.
Fri., August 1	Kilmore, Royal Oak Hotel	9 a.m. ..	8.43 a.m. ..	10.13 a.m.
No. 6.				
Mon., July 28	Charlton Cricket Club Hotel	3.30 p.m.	3.5 p.m. ..	10.48 a.m. (29th)
Tues., July 29	Korong Vale Rly. Stn.	11.50 a.m.	11.50 a.m. ..	3.20 p.m.
Tues., July 29	Boort Rly. Stn. ..	4.20 p.m.	4.20 p.m. ..	4.50 p.m.
Wed., July 30	Quambatook, Quambatook Hotel	9.30 a.m.	6.10 p.m. (29th)	Driving
Wed., July 30	Gredgwin Rly. Stn.	10.30 a.m.	Driving ..	11.50 a.m.
Wed., July 30	Inglewood Rly. Stn.	4.15 p.m.	4.15 p.m. ..	1.29 p.m. (31st)
Thurs., July 31	Wedderburn Rly. Stn.	2.35 p.m.	2.35 p.m. ..	3.10 p.m.
No. 7.				
Mon., August 4	Dookie Rly. Stn. ..	12.45 p.m.	12.45 p.m. ..	1 p.m.
Mon., August 4	Katamatite Rly. Stn.	2.10 p.m.	2.10 p.m. ..	2.50 p.m.
Tues., August 5	Nagambie Rly. Stn.	9 a.m. ..	7.10 p.m. (4th)	10.5 a.m.
Tues., August 5	Shepparton, Show Grounds	12 noon..	11.20 a.m. ..	6 p.m.
Wed., August 6	Numurkah, Farmers' Arms Hotel	10 a.m. ..	6.50 p.m. (5th)	12.24 p.m.
Wed., August 6	Strathmerton Rly. Stn.	12.47 p.m.	12.47 p.m. ..	Driving
Wed., August 6	Cobram Rly. Stn. ..	2.30 p.m.	Driving ..	3.30 p.m.
Thurs., August 7	Nathalia Rly. Stn.	2 p.m. ..	1.32 p.m. ..	3.20 p.m.
Fri., August 8	Murchison, Gregory's Hotel	9.30 a.m.	6.42 p.m. (7th)	10.58 a.m.
Fri., August 8	Rushworth Rly. Stn.	11.48 a.m.	11.48 a.m. ..	5.20 p.m.

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 8.				
Mon., August 4	Donald Rly. Stn. ..	4.30 p.m.	4.30 p.m. ..	4.50 p.m.
Tues., August 5	Woomelang, Commercial Hotel	10 a.m. ..	7.25 p.m. (4th)	10.50 a.m.
Tues., August 5	Watchem Hotel ..	2 p.m. ..	12.39 p.m. ..	6.35 p.m.
Wed., August 6	Birchip, Shamrock Hotel	10 a.m. ..	7.10 p.m. (5th)	1.23 p.m.
Wed., August 6	St. Arnaud, Show Grounds	3.30 p.m.	3.20 p.m. ..	7.40 a.m. (7th)
Thurs., August 7	Avoca Rly. Stn. ..	1.30 p.m.	1.30 p.m. ..	3.40 p.m.
No. 9.				
Thurs., August 7	Warracknabeal, Show Grounds	10 a.m. ..	5.20 p.m. (6th)	1.35 p.m.
No. 10.				
Tues., August 5	Casterton, Albion Hotel	10 a.m. ..	7.35 p.m. (4th)	Driving
Tues., August 5	Coleraine, Coleraine Hotel	3 p.m. ..	Driving ..	Driving
Wed., August 6	Branxholme Rly. Stn.	10.47 a.m.	10.47 a.m. ..	11.55 a.m.
Wed., August 6	Hamilton Police Station	2 p.m. ..	12.30 p.m. ..	4.45 p.m.
Thurs., August 7	Heywood Rly. Stn.	10 a.m. ..	6.29 p.m. (6th)	12.15 p.m.
Thurs., August 7	Portland Post Office	2 p.m. ..	1.5 p.m. ..	9 a.m. (7th)
No. 11.				
Mon., Aug. 11	Koondrook Hotel ..	4.45 p.m.	4.45 p.m. ..	11.30 a.m. (12th)
Tues., Aug. 12	Kerang, Kerang Hotel	12.45 p.m.	12.45 p,m. ..	3.55 p.m.
Wed., Aug. 13	Piangil Rly. Stn. ..	9.30 a.m.	Driving ..	Driving
Wed., Aug. 13	Bannerton Rly. Stn.	1.30 p.m.	Driving ..	Driving
Wed., Aug, 13	Margooya Rly. Stn.	1.45 p.m.	Driving ..	Driving
Wed., Aug. 13	Annuello Rly. Stn.	2 p.m. ..	Driving ..	Driving
Wed., Aug. 13	Koimbo Rly. Stn.	2.15 p.m.	Driving ..	Driving
Wed., Aug. 13	Bolton Rly. Stn. ..	2.30 p.m.	Driving ..	Driving
Wed., Aug. 13	Manangatang Rly. Stn.	4 p.m. ..	Driving ..	Driving
Thurs., Aug. 14	Cocamba Rly. Stn.	10 a.m. ..	Driving ..	Driving
Thurs., Aug. 14	Chinkapook Rly. Stn.	10.15 a.m.	Driving ..	Driving
Thurs., Aug. 14	Chillingollah Rly. Stn.	10.30 a.m.	Driving ..	Driving
Thurs., Aug. 14	Waitchie Rly. Stn.	11 a.m. ..	Driving ..	Driving
Thurs., Aug. 14	Gowanford Rly. Stn.	11.15 a.m.	Driving ..	Driving
Thurs., Aug. 14	Ultima Rly. Stn. ..	1 p.m. ..	Driving ..	Driving
Thurs., Aug. 14	Swan Hill, Show Grounds	4 p.m. ..	Driving ..	9.30 a.m. (15th)
No. 12.				
Mon., Aug. 11	Port Fairy, Star of the West Hotel	3 p.m. ..	2.45 p.m. ..	Driving
Tues., Aug. 12	Koroit, Koroit Inn Hotel	11 a.m. ..	Driving ..	Driving

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 12—*contd.*				
Tues., Aug. 12	Hawkesdale Hotel..	1.30 p.m.	Driving ..	Driving
Tues., Aug. 12	Penshurst Police Station	3 p.m. ..	Driving ..	Driving
Wed., Aug. 13	Warrnambool Rly. Stn.	10 a.m. ..	Driving ..	Driving
Wed., Aug. 13	Terang, Macdonald's Yard	2.30 p.m.	Driving ..	Driving
Wed., Aug. 13	Mortlake, Mt. Shadwell Hotel	3.30 p.m.	Driving ..	Driving
Thurs., Aug. 14	Camperdown, Dalgety's Yards	10 a.m. ..	5.40 p.m. (13th)	Driving
Thurs., Aug. 14	Timboon Rly. Stn.	1.45 p.m.	Driving ..	Driving
Thurs., Aug. 14	Cobden Rly. Stn. ..	4.5 p.m.	Driving ..	Driving
No. 13.				
Tues., Aug. 12	Dimboola, Wall's Hotel	10 a.m. ..	5.30 p.m. (11th)	11.30 a.m.
Tues., Aug. 12	Lorquon Rly. Stn.	3 p.m. ..	3 p.m. ..	3.5 p.m.
Tues., Aug. 12	Yanac Rly. Stn. ..	4.50 p.m.	4.50 p.m. ..	Driving
Wed., Aug. 13	Kaniva, Commercial Hotel	10 a.m. ..	Driving ..	12 noon
Thurs., Aug. 14	Rainbow, Commonwealth Hotel	1.30 p.m.	12 noon ..	Driving
Thurs., Aug. 14	Yaapeet Rly. Stn.	12.30 p.m.	Driving ..	Driving
No. 14.				
Mon., Aug. 18	Echuca Rly. Stn. ..	2.5 p.m.	2.5 p.m. ..	3.45 p.m.
Mon., Aug. 18	Rochester Fire Station	4.30 p.m.	4.25 p.m. ..	9.23 a.m. (19th)
Tues., Aug. 19	Elmore Rly. Stn. ..	10 a.m. ..	9.43 a.m. ..	1.15 p.m.
Tues., Aug. 19	Cohuna, Show Grounds	4 p.m. ..	3.50 p.m. ..	6.50 a.m. (20th)
No. 15.				
Mon., Aug. 18	Alexandra Police Station	2 p.m. ..	12.33 p.m. ..	4.35 p.m.
Tues., Aug. 19	Yea Rly. Stn. ..	9 a.m. ..	6.25 p.m. (18th)	10.40 a.m.
Tues., Aug. 19	Mansfield, Delatite Hotel	2.30 p.m.	1.55 p.m. ..	3.30 p.m.
Wed., Aug. 20	Wodonga Rly. Stn.	1.40 p.m.	1.40 p.m. ..	2.10 p.m.
Wed., Aug. 20	Tallangatta Rly. Stn.	3.48 p.m.	3.48 p.m. ..	Driving
Thurs., Aug. 21	Corryong, Court House Hotel	10 a.m. ..	Driving ..	Driving
No. 16.				
Mon., Aug. 18	Murtoa Rly. Stn. ..	3.55 p.m.	3.55 p.m. ..	5 p.m. (19th)
Tues., Aug. 19	Marnoo Rly. Stn. ..	11 a.m. ..	Driving ..	Driving
Tues., Aug. 19	Rupanyup Rly. Stn.	1 p.m. ..	Driving ..	Driving
Wed., Aug. 20	Hopetoun, Club Hotel	10 a.m. ..	10.10 p.m.(19th)	Driving
Wed., Aug. 20	Patchewollock Rly. Stn.	12 noon	Driving ..	Driving
Wed., Aug. 20	Speed Rly. Stn. ..	3 p.m. ..	Driving ..	Driving
Thurs., Aug. 21	Beulah, Sale Yards	10 a.m. ..	Driving ..	11.40 a.m.
Thurs., Aug. 21	Minyip, Club Hotel	2.45 p.m.	2.45 p.m. ..	11.45 a.m. (22nd)

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 17.				
Tues., Aug. 19	Vite Vite Rly. Stn.	2 p.m. ..	12.22 p.m. ..	4.37 p.m.
Wed., Aug. 20	Lismore Rly. Stn.	10 a.m. ..	5.14 p.m. (19th)	11.45 a.m.
Wed., Aug. 20	Westmere Rly. Stn.	2 p.m. ..	1.13 p.m. ..	3.52 p.m.
Thurs., Aug. 21	Inverleigh Rly. Stn.	10 a.m. ..	Driving ..	Driving
Thurs., Aug. 21	Bannockburn Rly. Stn.	11.30 a.m.	Driving ..	Driving
Thurs., Aug. 21	Geelong, J. J. Burn's Horse Bazaar	2 p.m. ..	Driving ..	5.17 p.m.
No. 18.				
Tues, Aug. 19	Jeparit, Show Grounds	3 p.m. ..	1.20 p.m. ..	8.40 p.m.
Thurs., Aug. 21	Nhill, Show Grounds	3 p.m. ..	7.6 p.m. (20th)	1.9 a.m. (22nd)
No. 19.				
Mon., Aug. 25	Colac, Butter Factory	10.15 a.m.	10.4 a.m. ..	11 a.m.
Mon., Aug. 25	Beech Forest Rly. Stn.	2.20 p.m.	2.20 p.m. ..	2.15 p.m. (26th)
Wed., Aug. 27	Winchelsea Rly. Stn.	10 a.m. ..	7.50 p.m. (26th)	11.16 a.m.
Wed., Aug. 27	Werribee Rly. Stn.	1.5 p.m.	1.5 p.m. ..	2.13 p.m.
Wed., Aug. 27	Lara Rly. Stn. ..	2.43 p.m.	2.43 p.m. ..	4.37 p.m.
No. 20.				
Mon., Aug. 25	Mitiamo Rly. Stn.	1.25 p.m.	1.25 p.m. ..	1.43 p.m.
Mon., Aug. 25	Pyramid Rly. Stn.	2.6 p.m.	2.6 p.m. ..	7.10 a.m. (26th)
Tues., Aug. 26	Raywood Rly. Stn.	9.18 a.m.	9.18 a.m. ..	12.50 p.m.
Tues., Aug. 26	Tandarra Rly. Stn.	1.5 p.m.	1.4 p.m. ..	4.42 p.m.
Wed., Aug. 27	Bendigo, Show Grounds	11 a.m. ..	6.10 p.m. (26th)	3.15 p.m.
Wed., Aug. 27	Castlemaine Rly. Stn.	4.2 p.m.	4.2 p.m. ..	Driving
Thurs., Aug. 28	Shelbourne Rly. Stn.	10 a.m. ..	Driving ..	Driving
Thurs., Aug. 28	Eddington Hotel ..	11 a.m. ..	Driving ..	Driving
Thurs., Aug. 28	Baringhup ..	12 noon	Driving ..	Driving
Thurs., Aug. 28	Maldon Rly. Stn. ..	1.30 p.m.	Driving ..	Driving
Thurs., Aug. 28	Newstead ..	3 p.m. ..	Driving ..	Driving
No. 21.				
Mon., Aug. 25	Traralgon Rly. Stn.	11.55 a.m.	11.55 a.m. ..	12.10 p.m.
Mon., Aug. 25	Maffra Rly. Stn. ..	1.30 p.m.	1.30 p.m. ..	4 p.m.
Tues., Aug. 26	Warragul, Show Grounds	9.30 a.m.	7.8 p.m. (25th)	10.40 a.m.
Tues., Aug. 26	Sale Rly. Stn. ..	1.30 p.m.	1.10 p.m. ..	4.23 p.m.
Wed., Aug. 27	Bunyip Rly. Stn.	10 a.m. ..	7.53 p.m. (26th)	11.13 a.m.
Wed., Aug. 27	Dandenong Rly. Stn.	12.30 p.m.	12.24 p.m. ..	1 p.m.
No. 22.				
Tues., Aug. 26	Frankston Rly. Stn.	12.51 p.m.	12.51 p.m. ..	2.20 p.m.
Wed., Aug. 27	Sunbury, Show Grounds	11 a.m. ..	8.8 a.m. ..	2.50 p.m.

STALLION PARADES, TIME TABLE—*continued.*

No. and Date.	Parade.	Time.	Officer Arrives.	Officer Departs.
No. 23.				
Mon., Sept. 1 ..	Wallace Rly. Stn. ..	10.27 a.m.	10.27 a.m. ..	11.21 a.m.
Mon., Sept. 1 ..	Ballan Rly. Stn. ..	11.49 a.m.	11.49 a.m. ..	Driving
Mon., Sept. 1 ..	Bacchus Marsh, Border Inn Hotel	2 p.m. ..	Driving ..	Driving
Mon., Sept. 1 ..	Melton Rly. Stn. ..	4 p.m. ..	Driving ..	8.44 p.m.
Tues., Sept. 2..	Mernda Rly. Stn. ..	11 a.m. ..	10.32 a.m. ..	1.34 p.m.
Wed., Sept. 3..	Lilydale Rly. Stn. .. .	2 p.m. ..	1.59 p.m. ..	4.56 p.m.
Thurs., Sept. 4	Romsey Rly. Stn. ..	10.11 a.m.	10.11 a.m. ..	5.28 p.m.
No. 24.				
Mon., Sept. 1 ..	Daylesford, Raglan Hotel	12 noon	11.15 a.m. ..	2 p.m.
Tues., Sept. 2..	Waubra	10 a.m. ..	Driving ..	Driving
Tues., Sept. 2..	Linton	2 p.m. ..	Driving ..	Driving
Tues., Sept. 2..	Skipton	3 p.m. ..	Driving ..	Driving
Wed., Sept. 3..	Clunes, Post Office	11 a.m. ..	8.36 a.m. ..	1.35 p.m.
Wed., Sept. 3..	Creswick, Post Office	2.30 p.m.	2.8 p.m. ..	Driving
Wed., Sept. 3..	Kingston Hotel ..	3.30 p.m.	Driving ..	Driving
Thurs., Sept. 4	Kyneton, Show Grounds	10 a.m. ..	9.20 a.m. ..	Driving
Thurs., Sept. 4	Redesdale Hotel ..	2 p.m. ..	Driving ..	Driving
Fri., Sept. 5 ..	Ballarat, Haymarket	11.30 a.m.	11 a.m. ..	2.53 p.m.
No. 25.				
Mon., Sept. 1 ..	Wonthaggi Rly. Stn.	11 a.m. ..	11 a.m. ..	Driving
Mon., Sept. 1 ..	Anderson Rly. Stn.	3 p.m. ..	Driving ..	Driving
Tues., Sept. 2..	Korumburra Rly. Stn.	10 a.m. ..	8.7 p.m. (1st)	11.1 a.m.
Wed., Sept. 3..	Foster Rly. Stn. ..	12.50 p.m.	12.50 p.m. ..	1.10 p.m.
Wed., Sept. 3..	Yarram, Sale Yards	3 p.m. ..	2.35 p.m. ..	7 a.m. (4th)
Thurs., Sept. 4	Stony Creek Rly. Stn.	9 a.m. ..	8.57 a.m. ..	3.2 p.m.
Thurs., Sept. 4	Leongatha Rly. Stn.	3.40 p.m.	3.40 p.m. ..	4.5 p.m.
Fri., Sept. 5 ..	Cranbourne Rly. Stn.	10 a.m.	8.17 a.m. ..	10.44 a.m.
No. 26.				
Tues., Sept. 2..	Orbost, Club Hotel	9 a.m. ..	6.25 p.m. (1st)	10.55 a.m.
Tues., Sept. 2..	Bairnsdale, Sale Yards	2.30 p.m.	1.55 p.m. ..	Driving
Wed., Sept. 3..	Ensay South ..	11 a.m. ..	11 a.m. ..	11.10 a.m.
Wed., Sept. 3..	Omeo, Golden Age Hotel	3 p.m. ..	3 p.m. ..	6.25 a.m. (4th)
No. 27.				
Wed., Sept. 17	Royal Show ..	10 a.m.		
Thurs., Sept. 18	Royal Show ..	9 a.m.		

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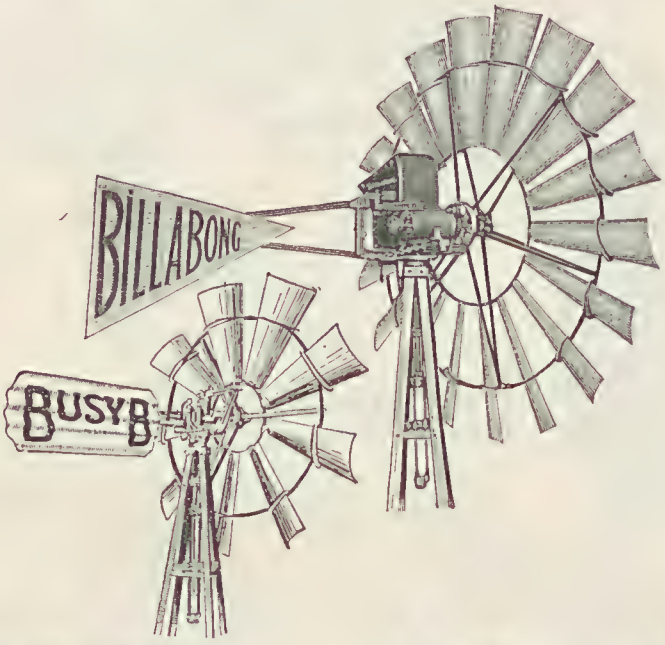

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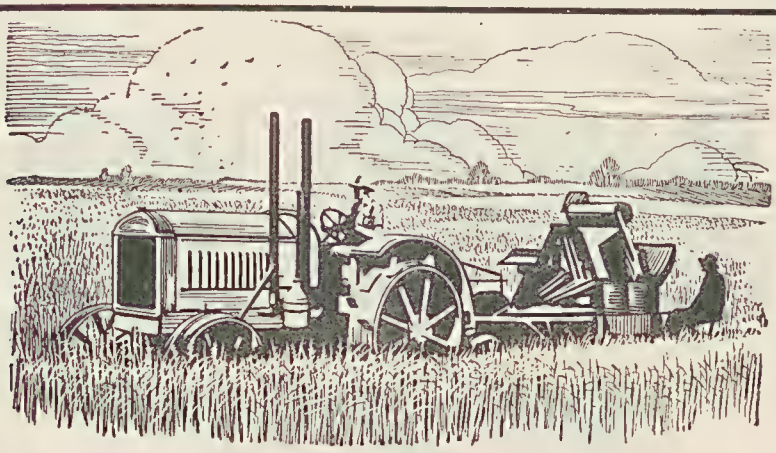

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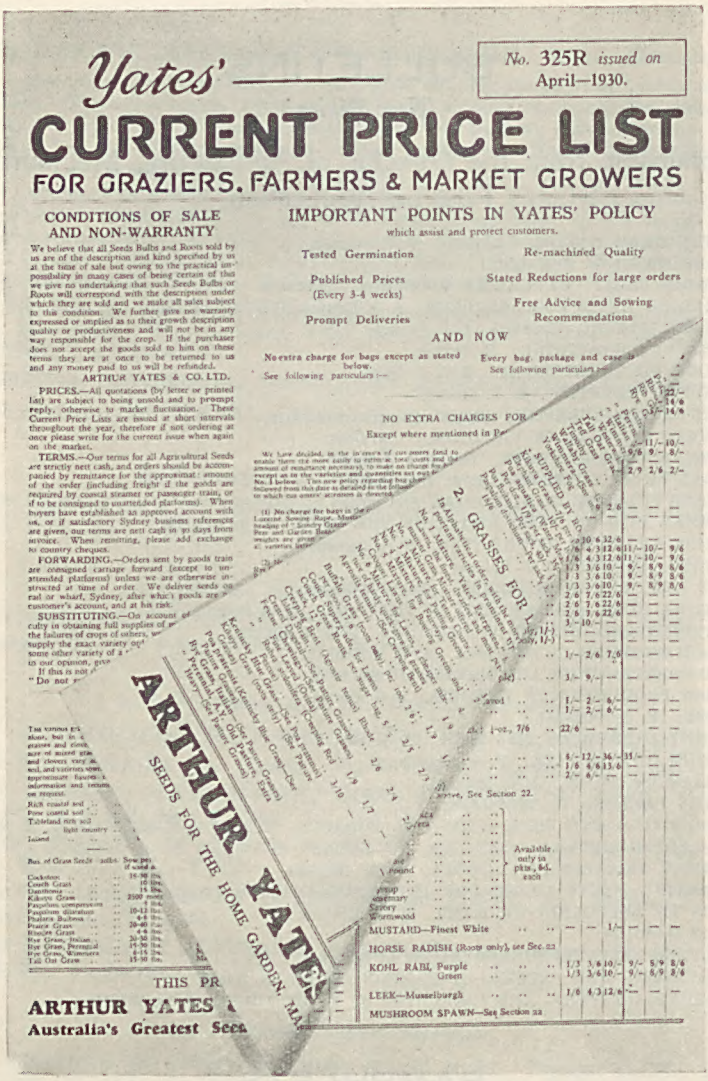
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DEPARTMENT OF AGRICULTURE

GOVERNMENT COOL STORES

VICTORIA DOCK

Facilities are provided for producers and smaller exporters of the various kinds of produce, so that direct shipments on their own account may be undertaken. The Government ownership and conduct of Cool Stores places producers in an independent position, and, in addition, preserves an open channel for the carrying on of the export trade in perishable products.

The Department of Agriculture will receive, handle, freeze, store, and ship **Butter, Cheese, Eggs, Fruit, Meat, Poultry, Rabbits and Hares, &c.,** for producers and exporters.

Produce to the value of over **£30,000,000** has been treated at the **Government Cool Stores.**

GOVERNMENT COOL STORES, VICTORIA DOCK (Dudley St.)

Telephones:

Office: 10383 Central. **Superintendent and Engineer-in-Charge: 10382 Central.**

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and further particulars may be obtained upon application to the

EXPORTS SUPERINTENDENT, DEPARTMENT OF AGRICULTURE,
PRODUCE OFFICES, 605-7 FLINDERS STREET, MELBOURNE.

Telephone, 4383 Central (five lines).

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